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Capable of change? The impact of policy on the reconciliation of paid work and care in couples with children

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Declaration

This thesis is my own work, apart from where otherwise indicated.

Abstract

This research examines the impact of work-family reconciliation policies on gender inequality in the labour market, and on the division of paid work and care in the household. Policies designed to help families meet their work and care responsibilities have undergone considerable reform over the last fifteen years. The research aims to understand how this has affected the way that earning and caring are divided between mothers and fathers, and the implications of this for mothers' labour market outcomes. The research compares two cohorts; the National Child Development Study (NCDS) tracks individuals born in 1958, and the British Cohort Study (BCS) those born in 1970. These cohorts experienced the key childbearing years of their early thirties on either side of a fairly sharp discontinuity in work-family reconciliation policy. The research aims to link this difference in policy environments to differences the way that couples in each cohort divide paid work and care, and in the labour market behaviour of mothers and the penalties they face when they are in employment. Logistic regression models are employed to quantify the magnitude and significance of the impact of cohort membership on the work and care outcomes of interest, controlling for other variables that affect these outcomes. Some case-level analysis of the data is also carried out; individuals representing typical family arrangements are highlighted, to demonstrate the relevance of the theoretical model and assist with hypothesis generation. Case stories illustrate the interplay of individual circumstances with policy and other external factors, in a way that is difficult to achieve using statistical methods. A key finding is that the younger cohort is less likely to report equal sharing of childcare than the older cohort, even after controlling for other factors that might influence the division of labour. This is also in spite of the finding that mothers in the younger cohort are more likely to be in work. This suggests progress to some extent, in that mothers perhaps find it easier to be in employment. However at the same time it represents a regressive step at the household level, as they not only continue to shoulder the majority of the care work, but are even more inclined to do so. Analysis of pay and status gaps also yields interesting results. The findings suggest that the penalty to motherhood in terms of labour market status accrues by virtue of the interrupted human capital accumulation that results from periods out of the labour market or working part time. However, the motherhood penalty in pay persists even after controlling for other wage determinants, suggesting that these gaps are a direct result of motherhood itself and not of the labour market behaviour changes that occur as a result. The research contributes theoretically and substantively to the wider literature on this topic. It brings together human capital perspectives with theories of gender, power and resources, and of the impact of policy on family life, and uses Amartya Sen's capability approach to reconcile and move forward these ideas. It also contributes to the practical understanding of the impact of policy on the way that families reconcile work and care, and in particular the implications of policy for gender equality. Finally, its methodological contribution is in the use of a narrative approach to

large-scale quantitative data, alongside more conventional statistical techniques, in order to further exploit the detailed, longitudinal data available.

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I think it must also be necessary to thank the participants in the cohort studies on which this research is based, who have given so much of their time and personal information over the years in order to make this fascinating dataset.

The day to day grind of the PhD can be disheartening, and I would like to thank my officemates for making it that little bit brighter, and indeed the wider Social Policy PhD group for being a source of advice and a place to vent over the years.

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Chapter 1

Introduction

1.1 Gender gaps and policy fixes

Family life has changed a great deal over the second half of the twentieth century and into the first decade of the twenty-first. In 1950, female labour force participation in the UK was 36.3% (Kenjoh 2005). By 2010, it was 70.2% (figure 1.1). At the beginning of this period, it was still legal to discriminate against women when hiring and remunerating employees, and women who became pregnant could be dismissed. Thus, equal rights in the workplace was a key challenge facing the second wave feminists of the 1960s, and the 1970s saw a number of key policy breakthroughs; the Equal Pay Act 1970, the Sex Discrimination Act 1975, and the introduction of a statutory right to return to work for mothers through the Employment Protection Act 1975.

In the ensuing period, female labour force participation soared (figure 1.1) while the gender pay gap fell from 35% in 1980 – i.e. the median earnings of full-time women were one third less than men's – to around 20% in 2008 (figure 1.2). However, these figures not only show progress in the latter part of the twentieth century, but also considerable plateauing into the twenty-first. Female labour force participation does not seem to be able to get much beyond about 70%, and the gender pay gap has remained stubbornly around 20% in recent years.

The other side of the coin – if we see labour market and household activities as being jointly determined – is a persistent inequality in the division of household labour. There has been some increase in men's participation in childcare and other unpaid work tasks

Figure 1.1: Labour force participation rate, 15-64 year olds, 1984-2010

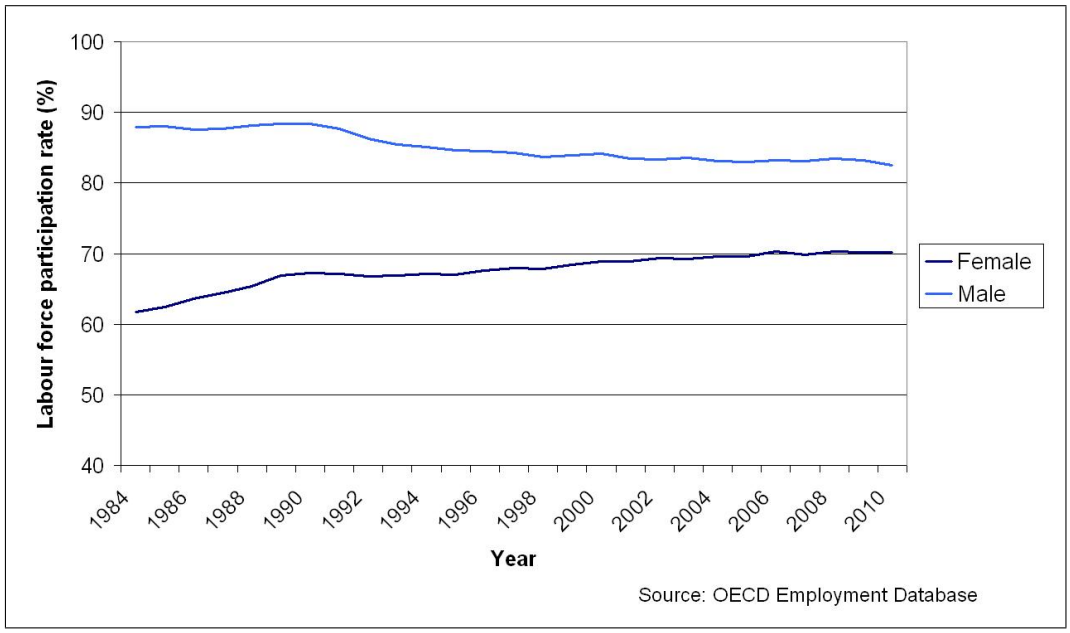


Figure 1.2: Gender wage gap in median earnings of full-time employees, 1980-2008

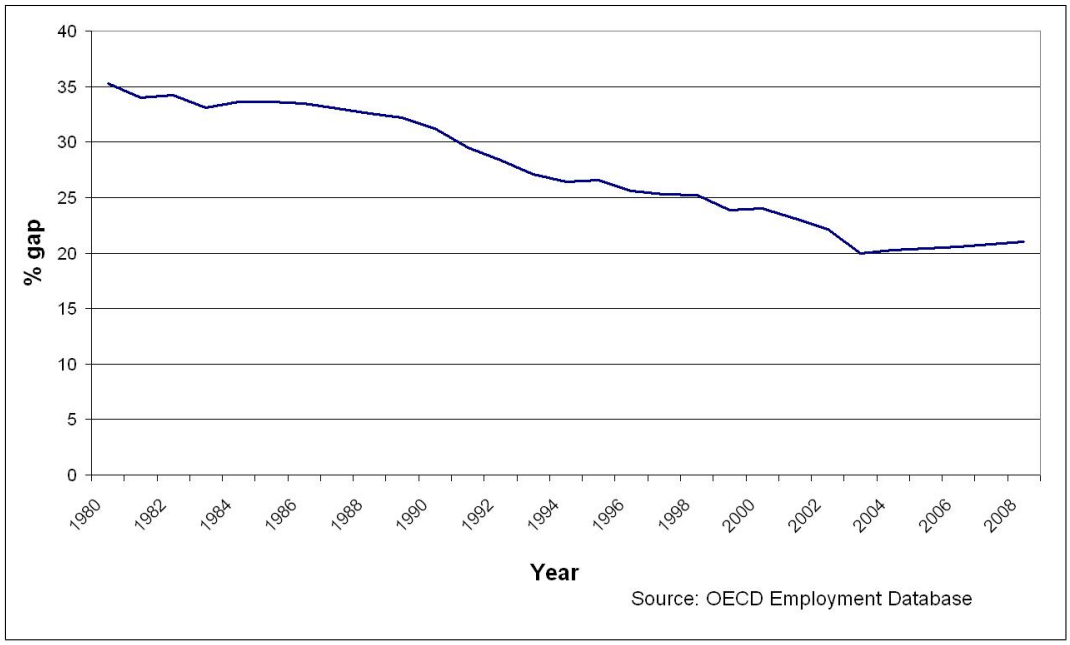
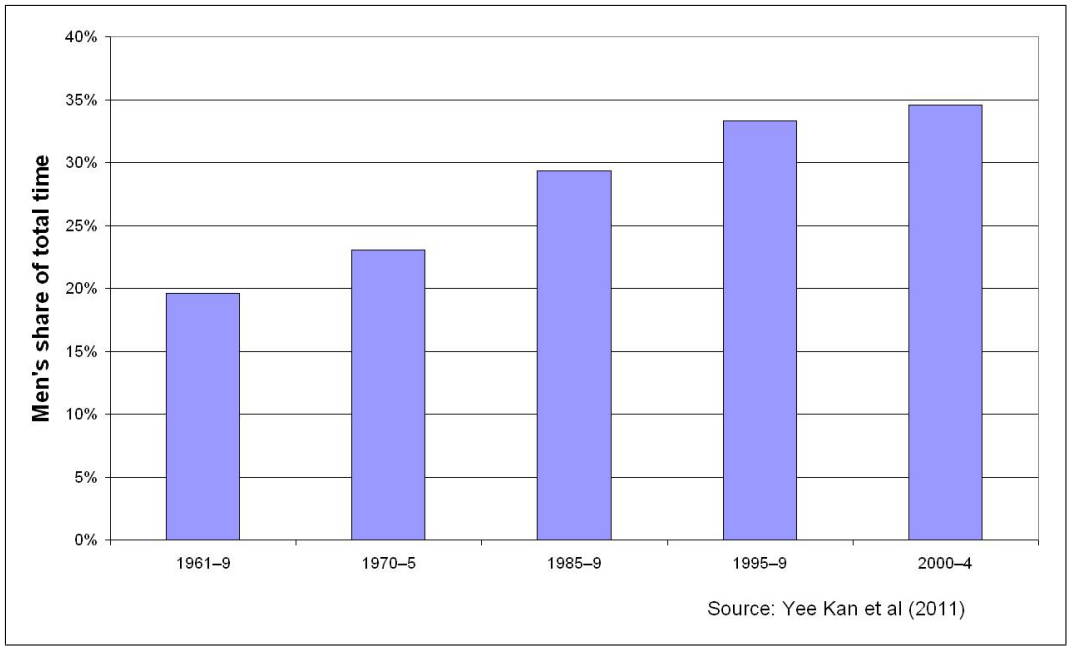


Figure 1.3: Men's share of total time spent on domestic work



over the last fifty years. Time use data suggests that men in the early twenty-first century were doing just over a third of total hours, compared to just under a fifth in the 1960s (figure 1.3). However, the less optimistic interpretation of this is that women are still doing twice as much. Particular tasks also remain more female dominated; men do only 26% of routine housework and 28% of caring activities (Yee Kan et al 2011).

These figures all suggest the persistence of substantial intra-household disparity, although as they are aggregate level statistics they cannot necessarily say much about the micro level. They are an averaging out of a diversity of family forms, and analysis at the household level is necessary to understand how couples divide work and care, and this is one of the aims of this research. More broadly, the overall aim of the research is to examine the change and continuity in gender inequality in the labour market and the household, in order to understand what drives it and what might change it. This is the key challenge of modern feminism, and it is far less tangible and straightforward than the battles of the pre-equal rights era. Although formally, women have 'equal' opportunities in public life, the battle is a cultural and personal one. Furthermore, it goes beyond a basic provision of equal opportunities, towards providing the support needed to truly access these opportunities.

1.1.1 The role of policy

The key angle that the research takes is to consider the role of policy in perpetuating inequality and bringing about change; what role policy has played in the UK, and what role it could play in the future. Although the policy environment has a broad scope to affect family life, this research by necessity has to focus, and it does so on a set of policies that might be described as 'work-family reconciliation policies'. The term 'work-family' is used instead of 'work-life' because the latter is too broad; 'life' encompasses those without partners or children, and indeed there is life beyond work and care even for those that do. The word 'reconciliation' is used instead of the commonly used 'balance', because the latter implies something that is good or satisfactory. A reconciliation is simply an arrangement, it does not have to be fair or unproblematic. Indeed, as this research will show, it often is not.

The starting point in delineating this set of policies is that families with children have certain needs. Parents need to earn enough money to meet their physical requirements, and they need to arrange enough care to meet their children's care requirements. A number of policies can help families to meet these needs. Financial support, such as family allowances and replacement for lost earnings when a parent is not in employment, reduces the burden of earning, while the provision or subsidy of childcare reduces the amount of care that the parents have to provide.

This research will look at how such policies developed in the UK between the early 1990s and the mid 2000s, and how the substantial changes that occurred (see Chapter 5) might have affected continuity and change in the reconciliation of work and care. It does so by comparing the experiences of two cohorts, born twelve years apart, who experienced the key childbearing years of their early thirties under different policy conditions. The National Child Development Study has followed individuals periodically from their birth in 1958 to the present day, and the British Cohort Study has similarly followed those born in 1970. The research compares the division of work and care, and mothers' labour market outcomes, in 1991 and 2004, when the two cohorts were 33 and 34 respectively, although it brings in information from across the lifecourse to help understand these outcomes. The data and strategy for analysing it is discussed in detail in Chapter 4.

1.1.2 Existing work

In the considerable literature on the topic of gender inequality in work and care, there are three major theoretical approaches, which map roughly onto disciplinary boundaries. A very brief sketch of this literature is given here, in order to set the context for the research aims and questions set out in the next section. Chapter 2 will explore these perspectives in greater detail.

In economics, what has been called the 'new home economics' borrows macroeconomic ideas about specialisation and trade and microeconomic ideas about efficiency and production, and applies them to a household setting. Households are conceptualised as trying to produce the required income and care as efficiently as possible, maximising household utility. The division of labour is a decision made along rational lines according to relative productivities in work and care activities (Becker 1981). Specialisation is the most efficient strategy because it maximises output, and gendered specialisation is likely due to women's relative productivity in child rearing activities. Gendered specialisation at the household level results in gender labour market gaps at the aggregate level (Mincer and Polachek 1974). Thus, the phenomenon of gender inequality in the labour market is simply an aggregation of all these individual-level decisions.

The sociological challenge to this perspective is that gender inequality is a top-down as well as bottom-up phenomenon. The household decision-making process is rigged from the beginning because monetary and ideational sources of power restrict potential outcomes within a gendered and unequal set of options (Agarwal 1997). On the economic side, Blood and Wolfe (1960) argued that because men work more and earn more, they bring more money and status to the household, and this gives them greater power in decision-making because they are valued commodities. On the ideological side, ideas about appropriate gendered family roles are transmitted through generations (Kohlberg 1966; Mischel 1966) and shape the work-family options that are acceptable to couples.

These theories are not new, and have undergone some development over the years, but they still underpin empirical enquiry in this area. The economic theory is still a point of departure for many contemporary British empirical studies. Ideas about the impact of mothers' 'suboptimal' labour market trajectories is still a key area of enquiry (Malo and Munoz-Bullon 2008; Manning and Petrongolo 2008; Connolly and Gregory 2009; Gangl and Zeifle 2009; Fourage et al 2010), even if those who are using them do not necessarily consider the situation unproblematic. The extent to which domestic responsibilities themselves are responsible for gender inequalities is also still a fruitful area of

inquiry (Bardasi and Taylor 2008; Bryan and Sevilla Sanz 2011; Crompton and Lyonette 2011). Similarly, scholars continue to explore the influence of relative wage on household outcomes (Kalenoski et al 2009) and the relative influence of gender and resource disparities (Yee Kan 2008). They also look at the transmission of norms (Burt and Scott 2002) and the way in which couples make recourse to gendered norms in their justification of their own gender inequalities (Taylor et al 2010; van Hooff 2011), and the difficulties that they face in adopting non-traditional behaviour patterns (Charles and James 2006; Nixon 2009; Gregory and Milner 2011).

A third dimension to this theoretical picture comes from the social policy literature, which tries to understand the impact of the institutional context on household arrangements. Work-family reconciliation policies in different countries take different approaches to easing the work or care requirements, or both, of families. Different policy packages can make some work-care options more attractive than others; for example free childcare incentivises dual-earning couples, while well-remunerated leave incentivises stay at home parenting. The theoretical policy literature identifies regime-level regularities in these packages and their associated favoured work and care arrangements. Feminist welfare state theory aims to understand how these packages embody particular norms about parenting and perpetuate these norms by supporting them with policies (Lewis 1992; Orloff 1993; Sainsbury 1994; Pfau-Effinger 1998).

There is a considerable amount of empirical literature that tries to operationalise these regime-level differences and their implications for the way that families organise work and care. This has been made easier by the rise of harmonised social surveys such as the European Social Survey, which allow analysts to pool information from different countries and estimate individual-level effects that are nested within countries or welfare regimes (Geist 2005; Fuwa and Cohen 2007; Mandel and Shalev 2009; Boye 2011; Ejrnæs 2011).

An emerging theme in the theoretical and empirical literature on work and family life is the use of Amartya Sen's idea of capabilities; of opportunities constrained by external factors, in ways that may vary systematically by strata (Sen 1985; 1993). Applied to work-family reconciliation, it is used to conceptualise the gap between aspirations about balancing work and care on the one hand, and the situation that arises in practice on the other (Lewis and Campbell 2007; Hobson and Fahlen 2009; Lewis 2009; Hobson 2011). This idea seems particularly congruent with the feminist paradox mentioned above; in an era in which opportunities are ostensibly equal, what factors might prevent them from being so in reality. It is for this reason, along with other congruences (see Chapter

3) that this research bases itself on a capabilities approach, albeit in a different way from the authors mentioned here.

1.2 The research

This section sets out the research aims and questions, outlines the approach that will be taken to meet them, and discusses the contribution that the research hopes to make in doing so.

1.2.1 Research aims

The opening section of this chapter outlined the dual puzzle of the continuing gender disparities in the labour market and the home. The overarching aim of this research is to say something about the past, and potential future, impact of policy on this inequality, by examining the impact of the policy changes that have occurred in the UK.

Specifically, the research aims, and a summary of their execution, are as follows:

1. To examine established policy and non-policy drivers of mothers' labour market outcomes and the division of work and care in the household.

This will be accomplished in Chapter 2, which constitutes an overview of the theoretical perspectives on work and care from different disciplines. The associated empirical evidence around these perspectives is also presented alongside, to examine the extent to which these theories have found empirical support in the literature.

2. To use these theories to develop a framework for assessing impact of UK policy, from which to derive hypotheses.

This framework is developed in Chapter 3. It brings together the ideas from Chapter 2 and tries to reconcile them through the lens of the capability approach, which leaves room for the agency that couples exercise over their work-family reconciliation but also the internal and external constraints they face in doing so. This framework provides

the theoretical foundation for the empirical work that follows; it forms the basis for the hypotheses about the likely impact of policy that will be tested in the analysis chapters.

3. To test these hypotheses

Hypothesis testing is undertaken in Chapters 6, 7 and 8. The impact of policy change is operationalised through the use of two cohorts of parents, who experienced the key childbearing years of the early thirties under different policy environments. The difference between them with respect to the division of work and care, and of mothers' labour market outcomes, will be a product of a range of environmental factors, but policy will play a key role among these. This role has been theorised in the earlier chapters; the question is whether the data supports or rejects these theoretical propositions. The nature of this research framework and how cohort differences can and cannot be used to say things about the impact of policy is elaborated in Chapter 4.

1.2.2 Research questions

The overarching question that the research seeks to answer is: *what is the role of policy in explanations of gender inequality in the labour market and the home*? However, given the cohort comparison strategy employed, the question should perhaps more usefully be couched in these terms. Thus, the principal research question is: *what is the difference between the two cohorts with respect to gender inequality in the labour market and the home, and what can this tell us about the impact of policy on gender inequality*?

This overarching research question is further broken down into three sub-questions that are addressed in the three analysis chapters. The main question is in two related parts. Firstly, the question of inequality in the home; the unequal division of work and care in the household and the reasons for this. Secondly, the question of inequality in the workplace, and the penalties that mothers face. This second point can be further reduced to questions of behaviour – what impact does motherhood have on women's labour market participation – and the implications of this behaviour for the 'headline' outcomes such as the gender pay gap. Thus, an empirical chapter is assigned to each of these three dimensions; inequality in the home, the impact of motherhood on employment behaviour, and the impact of motherhood-related adjustments to employment behaviour on labour market inequality.

Chapter 6 asks how work and care arrangements differ at the intra-household level.

Specifically:

1. how are paid work and care divided in the two cohorts?
2. has the gendering of the division of work and care changed (and if so in what way)?
3. what explanatory factors - policy and non-policy - explain any difference between the two cohorts?

Chapter 7 asks whether mothers' employment participation differs between the two cohorts:

4. do mothers in the younger cohort work more, either by being more likely to work at all or by working more hours?
5. what explanatory factors - policy and non-policy - explain any difference between the two cohorts?

Chapter 8 asks whether mothers' employment outcomes, relative to those of non-mothers, are better in the younger cohort:

6. what kind of penalty do mothers face in the two cohorts?
7. how is this linked to the division of work and care and the resulting employment patterns of mothers?
8. what explanatory factors - policy and non-policy - explain any difference between the two cohorts?

1.2.3 The research process and strategy

To formalise what should be apparent from the description of the aims and questions above, this research follows a deductive strategy. It begins by drawing on existing work to inform a set of hypotheses, which are then tested with data. Marsh (1982) calls this "descending the ladder of abstraction"; moving from the theoretical and more abstract to the empirical and tangible over a series of steps. The structure of the thesis follows these

steps in order. Chapters 2 and 3 are the theoretical foundations. Chapter 4 explains how these ideas will be operationalised and tested in the subsequent chapters. The first data driven chapter is Chapter 5, which brings together primary and secondary sources to outline the key policy reforms that are relevant to the comparison of the two cohorts, as well as the associated socio-economic changes of relevance to the research question. Chapters 6 to 8 then compare these cohorts and test hypotheses about the likely differences between them in the division of paid work and care. Finally, Chapter 9 brings the work back to theory again, reiterating the main analytical conclusions and their implications for theory.

The underlying logic of this kind of deductive research strategy begins from the position that there can be any number of theories about a phenomenon, and that what we observe through empirical research will either falsify them, or allow us to provisionally accept them until someone presents data that does falsify them (Blaikie 2000:15). This research operates within this paradigm; it takes a theory, indeed a number of theories, about the division of work and care, and tests them to see whether they can be falsified. This approach has its origins in the epistemologically positivist approach of the natural science, which operates under the assumption that the social world can be objectively observed and measured scientifically (Bryman 2004:12). It is because these things are assumed to be objectively measurable that their support or falsification of a theory is accepted; if facts are in the eye of the beholder, then a theory cannot be falsified.

1.3 Contribution to knowledge

The research aims to contribute to the existing body of theoretical work on the topic, as well as having substantive, practical implications for policymaking. The first aim is to contribute to the theory on gender inequality in the workplace and the home; what Blaikie (2000) calls the *discipline contribution*, or the "academic" motive for the research. It tries to move beyond disciplinary barriers, drawing on different perspectives and trying to reconcile competing understandings of the same problem. Inspired by similar work, it uses the capabilities approach to make room for opportunities and preferences as well as practical and normative constraints, and to understand the gap between preference and reality. It aims to build up some explanation of why, in an era of ostensibly equal rights, are outcomes so unequal.

The research also seeks to be methodologically innovative, through its adoption of a

quasi-narrative approach to the analysis of the quantitative survey data, alongside more conventional statistical approaches. This involves selecting individual cases from the datasets, and using the rich information about their lives to illustrate the operation of the conceptual model at the case level. Statistical methods are variable orientated; they generate information about the general effect of a small number of variables. This is in contrast to qualitative research, which takes a detailed, holistic look at the case level. The aim in this research is to replicate this to some extent; to use the data to illustrate the complex, inter-related way that the theoretical model says that the process of household allocation works, before leaving this behind to look at variable-level regularities with the statistical modelling. The approach, its rationale, and the limited existing examples of its application are considered in greater detail in Chapter 4.

The other kind of contribution that the research seeks to make is what Blaikie (2000) refers to as the *social contribution*. It is ultimately an applied piece of work intended to evaluate the impact of policy and generate recommendations about its future direction. And from a feminist perspective it seeks to understand the way that policy can help overcome or entrench gender inequalities, and how it could better facilitate a balance between paid work and care.

Chapter 2

Literature Review

A considerable body of literature exists on gender inequality in the labour market and the home, coming from a variety of perspectives across a number of disciplines. This review is structured around a key cleavage that exists in the literature, between perspectives emphasising the role of agency and choice, and those emphasising the role of structure and constraint. The former originate mostly in economics, the latter in sociology and social policy. The review presents each 'side' of the theoretical case, and then reviews the empirical work that has arisen around these key perspectives. Given the volume of scholarship on this issue, and the rapid changes that occurred in mothers' labour force participation and division of labour over the second half of the twentieth century, the review is restricted to empirical literature pertaining to the last twenty years. It also focuses principally on empirical work relating to the United Kingdom, as this is of greatest relevance to this research, although some attention is given to the cross-national policy literature in Section 2.2.4.

2.1 Theories of agency and choice

The first set of theories considered here are those that construct household and labour market phenomena as nothing more than an aggregation of rational, individual choices. They assume no inherent gender differences in the ability to compete in the labour market for jobs, or in the household for the preferred division of work and care. Thus, any gender differences in outcomes are either due to different endowments of talent, or different preferences. This section outlines these theories, and considers the extent to which

the empirical evidence supports the propositions they generate.

2.1.1 Human capital theory

A highly individualistic and agency-centric approach to explaining labour market outcomes is found in mainstream, neoclassical labour economics. This is referred to here as the orthodox economic theory, to distinguish it from the heterodox perspectives discussed here that challenge it but are nonetheless still situated within economics. The orthodox theory centres around the idea of human capital, as something that individuals can invest in and see a return on, through the rewards available in the labour market. Individuals are naturally endowed with certain talents and abilities, but the process of education, training and gaining labour market experience is also seen as a choice that individuals make in how they wish to invest in and deploy their capital.

This second, agentic, aspect of human capital is crucial. Jacob Mincer pioneered the theory (Mincer 1958) in response to the apparent paradox that the earnings distribution is different from the distribution of ability, as conventionally measured by instruments such as IQ. It holds that earnings are a function not simply of ability but of the amount of human capital investment required to do a job. As education and training require forgone earnings, the job must compensate for this over the lifecourse through higher wages, otherwise no rational individual would undertake any training. Therefore human capital investments are rewarded in the labour market so that rational individuals will choose to make them. The concept of human capital has been developed and elaborated, most notably by Becker (1964; 1975) and Mincer himself (1974). It is taken to represent a range of wage-enhancing attributes. Some of these are gained through personal investment, such as education and job training, while some are accrued through experience in a job and exposure to networks, which enhance the individual's ability to use the human capital that they have.

If wages are a function of human capital, then wage differentials are a function of human capital differentials. The orthodox theory holds that the gender pay gap is the result of different human capital investments made by men and women, resulting in different labour market outcomes (Mincer and Polachek 1974). These differences are caused primarily by the labour market interruptions women make due to childbearing. Leaving employment, often accompanied by returning part-time, is not an equivalent human capital investment to continuous, full-time participation, therefore it is not as highly compensated in the labour market. Furthermore, time not in employment is not only

a lost investment opportunity; a person's existing stock of human capital is assumed to actively depreciate during this time, although after re-entry it is possible to catch up to some extent over time (Mincer and Ofek 1982). The gender gap occurs because it is women who are disproportionately likely to take this intermittent path.

Childbearing may also mean that women achieve lower levels of compensation for the same level of human capital, because the impact of childbearing is unequal within the household, and men and women react differently to union and childbearing events (Polachek 1975). Furthermore, childbearing creates substantial care responsibilities, which are borne disproportionately by women. Because an individual's energy is finite, energy devoted to childcare leaves less to devote to paid work; this results in women not only doing less paid work than men or childless women, but in them being less productive while they are there (Becker 1985).

That women alter their behaviour in response to childbearing is a given in this framework. Orthodox economic theory makes the simplifying assumption that outcomes reflect preferences, therefore the empirical fact that women take time out of the labour market is not something the theory seeks to explain. This is made explicit:

> That the differential allocation of time and of investments in human capital is generally sex linked and subject to technological and cultural changes is a matter of fact which is outside the scope of our analysis. Given the sex linkage, we focus on the relation within the family between time allocation and investments in human capital which give rise to the observed market earnings of women. (Mincer and Polachek 1974:S77)

Therefore interrupted employment is treated as a constant, and childbearing is something that women plan their lifetime employment trajectories around and even in anticipation of. Given the depreciation that they are likely to experience, it is rational to choose an occupation where this is less important, thus women are likely to choose, say, a clerical occupation over a professional one. Polachek (1981) refers to this as phenomenon as 'self-selection'; a term that leaves little room for the possibility of constrained occupational choice.

Empirical work has attempted to establish the extent to which gender pay differentials can be attributed to human capital differentials, career interruptions and preferences. Studies vary in the aspects of this that they focus on, and the methods they employ, but the overall impression given in this literature is that the economic theory is not

wrong, but it is incomplete in its understanding of the factors driving pay differentials. The factors identified in the theory are important, but considerable variation remains unexplained.

The orthodox theorists discussed above conduct some empirical testing of their own theoretical propositions, on contemporaneous data from the United States. Mincer and Polachek (1974) find that 70% of the wage gap between married men and women can be explained by differences in the length and continuity of their work history, but the remaining portion is not explained by any of their theoretically important variables. Polachek (1981) simulates what the occupational distribution would look like if women had continuous labour force attachment. Although this difference in attachment explains some of the gender difference at the professional and managerial level, considerable disparities remain, such as the concentration of women in clerical and men in craft occupations.

Perhaps more relevant for this research is whether this broadly, but not completely, supportive picture holds for data that is British and more recent. As per the boundaries discussed in the introduction to this review, attention is paid to empirical work from the last twenty years; the theoretical framework above was devised and tested in a very different social context, the question is whether it still holds relevance for contemporary British mothers.

Joshi et al (1999) distinguish between the wage gap due to family interruptions, and the gap due to gender. They find that mothers' employment breaks and their concentration in part-time work does create an earnings gap between them and childless women. However, these discontinuities are only part of the explanation of the gender pay gap, as women with continuous employment histories are still paid less than men. Joshi et al (2007) look at the impact of levels of education and experience on wages for a cohort of men and women over time. They find that at age 33, human capital differences account for just 10% of the difference in wages. At this point the average difference in full-time work experience is just over two years. By age 42, the proportion of the difference explained by human capital has increased to 39%, due to women having taken time out; average difference in full-time work experience is now over five years. However, it should be noted that the portion not explained by human capital differences remains larger than the portion that is.

Some studies focus specifically on the impact of part-time working on women's labour market outcomes. For mothers, or indeed anyone, seeking part-time hours, the jobs

available are qualitatively and systematically worse than full-time opportunities, and may involve a downward occupational shift (Blackwell 2001; Connolly and Gregory 2008; Manning and Petrongolo 2008; Mumford and Smith 2009). In effect, they are jobs that offer lower compensation for the same amount human capital; and furthermore, the accumulation of human capital during the time spent in these jobs is lower than in a full-time position, which affects future earnings trajectories. The actual impact of part-time work on human capital, and therefore potential wage, is complex and heterogeneous. Connolly and Gregory (2009) find that part-time work can mitigate the penalty to child-bearing by facilitating employment continuity and leading back to full-time work at a later stage, thus minimising depreciation and disruption. However, it depends on the kind of part-time job, as women can also end up trapped in a pattern of insecure, low-paid part time work that alternates with periods of non-employment. A recent working paper by Neuberger et al (2011) suggests that it may be possible for mothers not to suffer adverse wage effects in the short term if they can switch to part-time hours in their existing jobs. It is when mothers have to change job and employer on return to work that they experience downward shifts in wage and status. However, in the long run all part-time work has a potentially negative impact on wage, as it may limit opportunities for promotion and wage growth. This is consistent with the idea that part-time hours are, or are treated as by the labour market, a lower human capital investment than the equivalent full-time experience.

Empirical work can shed light not only on the theoretical propositions regarding outcomes, but to some extent on the underlying mechanisms it claims lead to these outcomes. There are several things we might expect to observe empirically if the proposition that women seek out opportunities to work fewer hours (occupational self-selection), or to do jobs that require less effort while they are there (the work effort hypothesis) is correct. The first is a selection effect; that mothers are more likely than non-mothers to choose shorter hours or less intensive occupations. This would support the hypothesis that women choose their occupational paths in anticipation of childbearing interruptions. Malo and Munoz-Bullon (2008) use longitudinal data from the British Household Panel Survey to examine occupational prestige before and after childbearing. They find that women who ultimately end up taking career breaks were in lower prestige occupations before they took the break than those who did not [1], thus offering evidence in support of the hypothesis advanced above. However, longitudinal data also shows that strategic human capital investments (i.e. low aspirations in anticipation of childbearing) are only a partial explanation. For some mothers, care responsibilities have thrown them off oth-

[1] The negative impact of a break on prestige as measured on a (logged) Hope Goldthorpe Scale is between 3.6% and 5.9%

erwise high-human capital trajectories, which they subsequently seek to rejoin as their responsibilities diminish over time (Blackwell 2001; Connolly and Gregory 2008).

The second empirical question is whether we can observe a negative association between the amount of unpaid work a person does and their wage, controlling for the other human capital factors that are assumed to affect wages. This would suggest that, although their human capital suggests a higher potential wage, they do not have the same energy to devote to paid work as someone with fewer responsibilities, and are therefore less productive and less rewarded. Most of the empirical work in this regard is based on data from the United States, but there is a recent UK study by Bryan and Sevilla-Sanz (2011), who do find evidence of a small but significant negative effect of housework on wages. Using a fixed effects model to control for heterogeneity in employment orientation as well as the standard human capital variables, they find that an extra hour of housework reduces married women's wages by 0.28%.

Finally, if employment aspirations or expectations can be measured directly, we might see whether these are correlated with employment outcomes, and whether this supports the hypothesis that the gender pay gap is a result of women being systematically less employment orientated. Chevalier (2007) finds that the proportion of the wage gap among recent graduates explained by human capital increases from 20% to 84% when information on attitudes towards and expectations about work are included. Especially important are childbearing expectations, more so than personality attributes; career break expectations are found to explain 10% of the gender pay gap. Manning and Swaffield (2008) find that some personality attributes are significant – competitiveness, self-esteem, empathy and career orientation – although systematic gender differences in these explain no more than 5% of the gender pay gap.

2.1.2 Allocating time in the household

The above account of mothers' human capital decisions is quite atomistic; it does not conceptualise the process by which work and care decisions are made. Orthodox economics does actually offer such an account, bringing together the ideas about human capital and employment behaviour outlined above with theory on time allocation and comparative advantage in time allocation. This section outlines this theory, its empirical success and the criticisms that have been levelled at it.

Gary Becker had developed the economic concept of utility maximisation by incorpo-

rating the idea that time is allocated in a utility maximising way as well as money or consumption (Becker 1965). Although he acknowledged at the time that there are implications for household division of labour, he did not fully develop this insight until his later work on family economics (Becker 1981; 1985). In this formulation of household decision-making, the household has two complementary functions of income production and household reproduction, and a heterosexual cohabiting couple specialises in these according to their comparative advantage. These advantages are determined by each partner's potential productivity in the labour market and home spheres, which is where ideas of human capital become relevant. Specialisation is assumed to maximise total household 'output', in the same way that countries maximise total income by specialising in particular goods, as per Adam Smith's theory of comparative advantage (Becker 1981:18).

Productivity in paid work is estimated by reference to the average wage for men and women; because of the human capital disparities outlined earlier, and because the average male wage is calculated across a more diverse and experienced workforce, the male partner is likely to have the comparative advantage in paid work (Becker 1981:26). Even if potential wage were the same for both partners, women will always have the comparative advantage in childbearing due to the intrinsic biological differences between the sexes and the 'investment' women make in pregnancy and nursing (Becker 1981:21). Thus the aggregate outcome of these household-level decision-making processes is a gendered division of labour across society as a whole.

This theory of household allocation has inevitably received considerable criticism. Any theory that offers an account based on free choice and biological essentialism, whilst ignoring the potential role of norms and constraint, is bound to attract the attention of sociologists and feminist academics. Theories of the structural constraints on household roles are discussed in the second part of this review. For now we will accept the possibility of rational maximisation in this context, but investigate the theoretical and empirical case against the rationality and inevitability of specialisation that the above theory assumes.

Some have questioned whether it specialisation really confers the gains it is assumed to, or whether it is in fact a rather myopic and narrow understanding of the gains from marriage. Specialisation is not the only potential advantage to marriage; there are economies of scale of living together, and externalities consumption, such as the additional enjoyment of undertaking joint activities such as holidays (Blau and Ferber 1986). Furthermore, there are externalities generated in production, by the investments parents make

in caring for their children. This creates a 'free-rider' problem, as these externalities are enjoyed by society as a whole, but there is no mechanism with which to negotiate an efficient outcome in the presence of these externalities, as per Coase's theorem (Folbre 2004).[2] Women lose out because they predominantly make these investments in care, but they cannot reap the full benefits; as Folbre points out, mothers have no claim on their children's future income stream, and no claim on the profits of the companies that use their children's future labour.

Similarly there are costs that are not taken into account in the economic framework. Oppenheimer (1997) argues that, in an era of high female labour force participation, the prevailing standard of living is that of a dual earning couple and a single earning couple is relatively disadvantaged. This casts doubt on whether Becker's work is really applicable to any era other than that in which it was developed, given that this kind of specialisation is historically anomalous.[3] The theory also ignores the costs or risks involved in specialised roles; the implications of death or separation, the isolation and boredom of the homemaker role, and the long run losses of a woman taking large amounts of time out of the labour force if she wishes to re-enter it (Blau and Ferber 1986).

This raises an issue that the neoclassical framework cannot effectively deal with; that the man and the woman may have competing interests, and that what is socially efficient or beneficial at the aggregate or household level is not necessarily optimal at the individual level. Household allocation involves "co-ordination problems that cannot be solved entirely by the independent decisions of individuals" (Folbre 2004:7), as per the neoclassical theory. Perspectives on the nature of how these competing interests are reconciled will be discussed below.

The orthodox economists' general response to any criticism that their theories are incomplete is that theories should be as simple as possible and judged on their ability to predict (Friedman 1953). However, in this case the empirical evidence suggests that the theories are able to predict household outcomes, but only to some extent, suggesting that they are in need of some elaboration. Several studies have attempted to establish the contemporary applicability of the idea of rational specialisation, using a longitudinal or selection model to control for unobserved heterogeneity (including in preferences for domestic outcomes). This work generally concludes that there is something standing in the way of non-traditional or egalitarian household arrangements, even when relative

[2]This is the theorem in neoclassical economics that an efficient outcome can be reached even in the presence of externalities, through negotiation between rational individuals.

[3]Although it may seem unfair to criticise a theory for being outdated fifty years after it was devised, it should be noted that many of its criticisms discussed here were made at the time.

human capital suggests that this is the most rational outcome.

Kalenoski et al (2009) find that, for British mothers, an increase in their partner's wage is associated with more childcare and less paid work during the week, while an increase in their own wage is associated with more paid work during the week. However, men's market work time does not vary with their own or their partner's wage, and an increase in their partner's wage leads to more childcare time but only at the weekend. Thus the responses are asymmetrical; women react in a way consistent with the orthodox theory, whilst men are almost unresponsive to similar changes.

This pattern is remarkably stable across other national (Western) contexts. Another fairly consistent pattern is the observation that rational considerations challenge traditional arrangements only in a certain subset of high human capital couples. Wang and Bianchi (2009) find evidence that US fathers with an employed wife do more childcare, particularly when children are young, suggesting that wives are able to use their economic power to some extent. However, they suggest that families in which mothers work when children are very young are a special type in which women are especially committed to the labour force and likely to be in good jobs that afford them an unusual amount of economic power. Connelly and Kimmel (2009) find spousal time use to be a poor predictor of a parent's time in caregiving. The small effects found suggests that mother's work time increases the amount of childcare her partner does, suggesting that some rational substitution is possible, but only in higher earning couples. Bloemen et al (2010) find that, among more educated and dual-earning Italian couples, there is some evidence of a more balanced division of labour, with fathers caring more and mothers working more. However, the broader picture is that Italy is a context in which women do the vast majority of the unpaid work, and the burden of additional children is found here to fall predominantly on mothers, with little variation by spousal characteristics. Pailhe and Solaz (2008) find that French mothers and fathers do not replace each other in a response to a change in employment circumstances, even when it is rational for them to do so. Parental time is only partially substitutable, flowing much more from men to women than vice versa, and varies with prestige of task, suggesting that men are able to be selective about their domestic contribution. And despite the fact that unemployed parents spend more time with their children, there is still a positive association between paternal education and paternal time.

Overall, this empirical work suggests that, although rational, human capital based considerations drive the division of labour to some extent, there are other factors at work. The orthodox theory does have something to offer in explaining the division of labour

in the household, even in contemporary societies, where it seems to apply as long as the male partner earns more. However, although there is evidence that human capital can give women a more equal place in the household, it seems that this is not sufficient. Even when an egalitarian or non-traditional outcome is rational given a couple's circumstances, barriers appear to remain to its achievement. The work presented here thus far cannot illuminate what these barriers are; that is the task of the second part of this literature review.

2.2 Theories of structure and constraint

Sociologists might regard the following quote with some ironic humour:

> Of course, if division of labor in the family is equated with discrimination, all of the gap is by definition a symptom of discrimination. Otherwise, the analyses of existing wage gaps and of their changes over time remain meaningful, not tautological. (Mincer and Polachek 1974:S104)

To those of a more structuralist perspective, the orthodox economics approach to explaining gender disparities *is* completely tautological. It can be reduced thus; human capital disparities exist because they exist, and because they exist, people act in ways that assume they exist, so they continue to exist. This account assumes a level of choice that many have argued is impossible, due to the constraints that women, and particularly mothers, face in accumulating and using human capital, and in negotiating egalitarian arrangements in the household.

This section addresses perspectives that argue for the importance of structure and constraint for understanding maternal employment and the division of labour in the household. Although the agency-centric perspectives do not discount the possibility of constrained choice, they may underestimate the extent of these constraints, assuming that mothers have choices that they in fact do not. Furthermore, their ontological individualism eschews the operation of these at any higher level than the individual. The perspectives here that emphasise structure can still leave room for agency, but concern themselves mainly with the identification of constraint. They seek to establish the extent to which mothers experience barriers in accumulating and using the human capital that makes them employable, the way that household decision-making is shaped by more

than just rational choice, and the way that the context in which decisions are made can have a profound impact on their outcome.

2.2.1 Discrimination against women and mothers

The agentic perspective on mothers' differential human capital accumulation is that it is driven by women's own investment choices. However, some have argued that it is misleading to attribute human capital investment and occupational attainment purely to personal choice or agency, on the grounds that is not in fact necessarily a process people have much control over, due to the barriers created by employers and their organisational processes. This may take the form of direct discrimination, but also the less obvious processes and practices that work to disadvantage women. These barriers mean that women become scarce in certain jobs and concentrated in others.

Tomaskovic-Devey et al (2005) take issue with human capital theory over its assumption that the human capital variables 'explaining' the wage variation are fixed or prior. They argue that these variables are themselves endogenously determined within a person's labour market interactions. The experience and training a person has access to and receives is not fully within their control, as it is ultimately up to employers themselves who to hire, train and promote. Reskin (1993) reviews a range of theoretical propositions about organisational barriers; particularly relevant here are gendered personnel practices and the advantages of incumbency. Whether a firm uses informal or formal recruitment practices matters; because those already in good jobs have better access to more good jobs, this perpetuates men's advantage if they are disproportionately in better jobs. Even formal recruitment is not an equal playing field if women cannot get the relevant experience to be eligible for promotions.

Empirical work by Manning and Swaffield (2008) on labour market entrants suggests that these gendered processes operate, independently of any considerations of family responsibilities and labour market interruptions, through looking at the gender wage gap that appears in the first ten years after labour market entry. Tracking the wage growth of a sample of young men and women, they find that human capital explains about half of the gender difference. Within this, the main disparity is in on-the-job training, which is potentially subject to the factors beyond individual control discussed above. Most of the remainder of the difference is unexplained. Limited support is found for the importance of job mobility and certain personality attributes, both of which may be related to the ideas of gender norms and socialisation discussed below.

Perhaps the biggest organisational or demand side barrier to human capital investment and deployment is discrimination. Mainstream economics does not deny that this exists, but it is either grounded in 'fact' and therefore efficient, or based on prejudice and thus inefficient, imposing a cost that employers will not choose to bear in the long term. One orthodox perspective on this is the idea of taste-based discrimination (Becker 1957;1971), which holds that an employer chooses not to employ people from a certain group because they, or their employees or their customers, simply do not like that group and get disutility from contact with them. The favoured group is therefore more in demand, and can command a higher wage. If a firm is operating in a perfectly competitive market, then this discrimination should erode over time, as choosing a candidate on any basis other than productivity is a sub-optimal decision and will ultimately hand an advantage to rival firms that do not discriminate. However, competition is imperfect in reality, thus allowing the discrimination to perpetuate. This differential may in fact be further widened because the disfavoured group may be crowded into the occupations that will employ them, increasing supply relative to demand and pushing down their wage (Jacobsen 1999).

An alternative economic perspective is statistical discrimination (Phelps 1972; Arrow 1973); the theory that employers discriminate against any member of a group that is on average less productive, regardless of that individual's personal abilities. Assuming the group in question really is less productive on average, then this is in fact a good business decision, as it is an efficient sorting mechanism for choosing between potential candidates. However, it can then become self-perpetuating, as the less productive group is never given a chance to gain the relevant experience and prove themselves in the job. In order to break the cycle, an employer would have to employ a member of the less productive group, and there is no incentive to do so if their rivals do not. This explanation of discrimination is thus more stable in the long run than the taste-based perspective.

Few studies directly examine the link between competition and discrimination, although there are two relatively recent studies that have done so. Hellerstein et al (2002) find that employing a relatively high proportion of women increases profitability in US firms with high market power, but not those with low market power, suggesting that firms can be sheltered by their market power in the short run. Although those employing fewer women are less profitable, they are not going to go out of business immediately. However, this does not disappear over time; discriminating firms grow just as fast as non-discriminating ones, and there is no evidence that they are pushed or bought out by non-discriminating firms. Heinze and Wolf (2010), taking a firm's relative size as an

indication of its market power, find that market power is associated with a larger within-firm gender wage gap in Germany. This suggests that firms insulated from competition are able to exercise discrimination thanks to their monopsonistic power. Both of these studies suggest that discrimination can persist where employers are sufficiently insulated from competitive forces to get away with it.

At the individual level, discrimination is very difficult to verify empirically, as it is not a variable that can easily be measured. One approach is to take the unexplained residual in human capital models as evidence of discrimination, although this does not constitute direct evidence. If there are no unobserved differences in productivity, then all of the unexplained portion can indeed be attributed to discrimination, however at the other extreme it could be the case that none of the residual is due to discrimination and it is all down to unobserved productivity differences. There is no way to determine where reality lies on this scale. Nor can this method capture the way in which discrimination affects the human capital variables that are included (Altonji and Blank 1999).

The most direct way of testing for discrimination is through the audit study. This entails an experiment in which two candidates 'apply' for a job, having identical qualifications but differing on a key grouping variable, usually race or gender. This can take the form of two real people posing as interview candidates and attending an interview, or the creation of fictional applicants with fabricated CVs. Any difference in success between the two candidates can therefore be put down to the only difference between them, and taken as evidence of discrimination on this basis, although matching is necessarily imperfect because not all the relevant variables can be observed, and employers may become suspicious if two applicants are too alike (Riach and Rich 2002). Riach and Rich (2006) found evidence that women are discriminated against when applying for male-dominated jobs, while men are discriminated against when applying for female-dominated or mixed jobs. On the other hand, Booth and Leigh (2010) find a pro-female bias in heavily female-dominated occupations (over 80% female), but no bias in other occupations. This apparent pro-female bias in employment is consistent with the existence of a gender wage gap if these occupations are systematically lower paid.

Another experimental approach to measure discriminatory attitudes is the laboratory study, in which participants are asked to evaluate hypothetical people on various dimensions of employability or productivity. Randomly assigned groups are presented with identical biographies, differing only on the grouping variable of interest; in this case, motherhood. This research is based almost entirely on samples of American undergraduates, therefore some care should be taken in generalising it to the context of the

British labour market. However, they offer some insight into the way gender norms and attitudes shape perceptions of labour market productivity. Results have suggested that mothers are perceived as less competent and committed than men and childless women (Cuddy et al 2004; Fuegen et al 2004; Correll et al 2007). Even when study participants are offered 'proof' that mothers are competent, they are still evaluated less positively than men; doubt is cast on their interpersonal skills in a way that it is not for equally competent fathers (Benard and Correll 2010).

Segregation and undervaluation

Some have also argued that women are not only discriminated against in access to jobs, but in the way their contribution is valued when they are in a job. Although the Equal Pay Act makes it illegal to pay a woman less than a man for the same job, occupational segregation means that women are not necessarily in the same jobs. The UK labour market is characterised by a high degree of horizontal gender segregation; the concentration of men in some types of occupations and women in others. Segregation in the labour market as a whole can be measured using a Gini coefficient, where 1 represents complete segregation and zero represents perfect integration. The 2001 census suggested that this number in the UK was 0.69, which is less than the 1991 figure of 0.78, but still represents considerable segregation (Blackwell and Guinea-Martin 2005). Specifically, this manifests itself as in the following patterns:

> 60 percent of women workers are employed in just ten out of 77 recognised occupations, with the heaviest concentrations being in what have been called 'the five Cs': caring, cashiering, catering, cleaning and clerical. The 2001 census showed that women formed 84 percent of the workforce in personal services, 78 percent in administration and secretarial work, and 71 percent in sales and customer services. (House of Commons Trade and Industry Committee 2005)

If these types of occupations systematically pay less than male-dominated occupations, then this difference will be an important driving factor in the gender pay gap. Manning and Petrongolo (2008) find that the pay gap between women's full and part time occupations can be explained partly by human capital and partly by occupation; in fact, within occupations, there is almost no pay gap between full and part-time employees. Mumford and Smith (2009) also find that differences in occupation and industry are associated

with the earnings gap between full and part-time workers, and the gender earnings gap for part time workers, even after controlling for individual characteristics.

However, some have argued that the pay disparities do not reflect human capital differences; that these occupations are undervalued for the same level of human capital. One theory centres around the nature of the skills involved, and the perceived effort required to learn and execute them. Jobs done more commonly by men use 'technical' skills, which are considered to require training and learning (in other words, human capital accumulation), whereas those more commonly done by women use 'relational' skills, which are assumed to be intrinsic and not requiring as much training (Daune-Richard 2000). This assumption may be misplaced as in reality, some, such as nursing, require extensive training. However, even those that do not still require 'emotional labour'; the management of the self and the situation when dealing with a customer or service user in a frontline role. Some argue that this should be considered a skill in itself (e.g. Bolton 2004), although Payne (2009) argues that it is not necessarily meaningful to simply conceptualise all frontline roles as 'skilled' because there is so much variation in the amount and type of emotional labour required within this category of job.

Another perspective on the undervaluation of female-dominated jobs focuses on the way the care sector is perceived and rewarded relative to other sectors of the labour market. Financial remuneration in this sector is low because the sector itself is not profitable; its consumers are usually those in society who are least able to pay, typically the very young and the very old (England et al 2002). Furthermore, there is little sense that society's resources should be diverted from more profitable sectors to reward those in caring roles. Care work may be associated with unpaid mothering and housekeeping roles, despite professions such as nursing and teaching requiring high levels of education and skill, and there may be a certain squeamishness about its commodification (England and Folbre 1999). It may also be assumed that there are intrinsic rewards to caring occupations, and that this is a compensating differential that merits lower financial reward (England et al 2002).

In addition to the possible undervaluation of female-dominated occupations, part-time workers (who are predominantly female) may also be undervalued relative to a full-time employee with equal human capital. A government survey of employers suggests a widespread perception that part-time workers are less productive, purely because of the hours they work. 60% of employers said that it would be acceptable in all or nearly all cases for a woman to switch to part-time after returning from maternity leave, and of these, 65% said she could keep her existing job or seniority (Woodland et al 2003). Thus

for a substantial minority of employers, women who were valued at one level before they wanted to go part-time suddenly become less valuable, even though the only thing that has changed is the hours they wish to work.

Despite the potential undervaluation of the types of jobs that women, and particularly mothers, do, it is clear that time spent working part-time as opposed to full-time will eventually lead to the kind of human capital disparities that 'justify' pay gaps. Therefore the next question to address is why it is mothers that work part time rather than fathers, besides a simple choice-based explanation; what is it about the household allocation of responsibilities that makes mothers the principal carer, and the policy environment that does not help them reconcile this with full-time employment. This is what the rest of the review concerns itself with. The next section considers the interaction of competing interests within the household, and how power and dominance is achieved in the decision-making process of dividing paid work and care. The final section considers wider societal level influences on this process, and how meta-structures shape the lives of the individuals within them.

2.2.2 Relative resources and bargaining power

This chapter has already considered the orthodox economics reasoning of why the gender division of labour is unequal; essentially that it boils down to comparative advantages conferred by biology and the rational utility maximising decisions that flow from this. A single head of household is assumed to carry out this maximisation in a way that is in the interests of all household members, and any resulting disparities in wealth are not problematised as long as they maximise the total utility of the household. This conceptualisation has been criticised by those who suggest that the head of the household may not be benevolent, and in fact may take the opportunity to use his resource advantage to achieve the outcome that is most desirable to him. Competing models have been proposed that attempt to understand how competing interests are reconciled within the household, and how human capital disparities are more than 'neutral' ways to decide outcomes, but can actively be exploited as a source of power, in a way that typically advantages men.

Materialist conceptions of power relations in the household seek to understand how tangible resource-based factors influence household outcomes; it is not about gender ideology, as outcomes could theoretically be counter-normative, but about the distribution of resources that happens to be gendered. Blood and Wolfe's (1960) resource theory

of household power explicitly tries to move beyond ideological explanations, based on their empirical work, which concluded that, even in 1960, there was no explicit ideological commitment to a patriarchal household set up in which a male head of household makes all of the decisions. Instead they found strong links between male dominance and the inter-related aspects of education, income and social status, which men brought to the household in far greater proportions than women. Blood and Wolfe saw these as giving men greater power mainly because they are valued commodities, but other theorists have gone further to consider why these things endow power. Marxist feminists see the imbalance of these valued commodities as far less innocuous than do Blood and Wolfe, who see gendered outcomes as a result of mutual recognition that this is the best thing rather than the exertion of brute force. However, theorists such as Walby (1986) and Delphy and Leonard (1984) see clear parallels between this relation of economic inequality and others in society, in the wider class system. Housewives become a subordinate class, with all the potential for exploitation that this entails. England and Farkas (1986) argue that what men exploit is the hypothetical position of an economically dependent woman in the event of a relationship breakdown. Men's contribution to the household – income and status – is fungible and transferable outside of the marriage, while women's – domestic work – is far less so. Thus women are in a weaker position to negotiate for their own interests.

This idea of a couple's respective options outside a relationship is the key explanatory factor in the models of household decision-making found in strategic economics. Well-established formal theories of how competing agents arrive at outcomes given a set of payoffs and preferences have been applied to the issue of household division of labour (Manser and Brown 1980; McElroy and Horney 1981; Amilon 2007; Andaluz and Molina 2007; Rainer 2007; Beblo and Robeldo 2008). In these game theory models, power operates through the mechanism of the breakdown position, which is defined as what would happen if no co-operative arrangement can be reached (in this instance, the termination of the relationship). Therefore the relative power an agent has to negotiate their preferred outcome depends on the strength and credibility of the threat of breakdown; the relative position of the couple in the event of relationship breakdown, and the likelihood with which they would invoke this option. This in turn depends on factors such as the support that the person can draw from themselves, through their own earning capacity, and from others such as other family members and the welfare state. Bargaining occurs between the couple until either breakdown occurs, or a solution is reached that is Pareto efficient; it cannot make one person better off without making another worse off. At this point, equilibrium occurs. The concept of Pareto efficiency helps to explain the persistence of apparently unfair outcomes. For example, the difficulty faced by a wife

in a homemaking role to negotiate a more equal division of labour if any change in that respect would make her husband worse off, thus she remains in this role even if she does not like it or perceive it as fair because it is an equilibrium.

These models, although still abstractions, arguably represent something more akin to a household time allocation process than the orthodox models outlined earlier. However several criticisms have been levelled at such models. Although they allow for spouses to have different utility functions, they still assume that these functions are well defined, which involves the implausible assumption that agents are fully aware of their own interests and able to act on them (Woolley 1999). Also slightly implausible is the idea that the threat of divorce is repeatedly invoked every time a couple negotiates (Seiz 1999), although it is perhaps more likely that an implicit threat of relationship breakdown encourages an agreement to be found. The models are also restricted in their ability to make predictions by their inability to distinguish between different types of household work (Seiz 1999), and indeed different types of market work. Their static formulation also does not allow for different allocations in different time periods, which is likely as young children age, for example (Gordon 1979). Finally, although bargaining is assumed to take place, there is no analysis of the bargaining process itself, with agents assumed to arrive instantaneously at the outcome (Woolley 1999).

These materialist perspectives generate two main empirical predictions. The first is that couples with higher resource disparities will have a less egalitarian division of household labour than those in which the partners' contributions are more evenly matched. The second is that the division of labour will be related not only to the instantaneous resource distribution in the household, but also to women's potential earnings. For example, a mother may contribute no income when her children are small, but she may have left a high paying job to look after these children, to which she could return were she to lose her husband's income. These two predictions are borne out to some degree in the limited empirical work on this topic, although there seems to be an independent impact of gender for which materialist explanations cannot account. There is no recent British empirical work that focuses on relative resources, although their partial impact has been demonstrated in both the USA and Sweden.

Most of the game theory models referred to above are purely theoretical exercises, but Amilon (2007) tests the propositions of her own bargaining model, which takes as its dependent variable the sharing of parental leave in Sweden. She finds that, as the model predicts, relative education and income in a couple are significant explanatory factors for leave sharing. However, there is also a statistically significant difference between cou-

ples who are both lower income and those who are both higher income, suggesting that absolute level of household income is also important. This is consistent with other explanations that are not explored empirically, such as the greater ability of those on high incomes to contract out household tasks, and the potential link between income and gender. Another Swedish study (Evertsson and Nermo 2007) examines longitudinal data to establish whether a change in relative resources affects the ability to negotiate outcomes and thus leads to a renegotiation of arrangements. They find that if a woman's relative resources increase, and economic dependency decreases, she performs less housework, and this is transferred rather than simply contracted out. However, women still do more housework than their partners, even when they earn more or are more educated. Datta Gupta and Stratton (2009) consider the impact of relative power, as measured by relative earning potential, on the division of leisure time, as they argue that the association with housework is weak because of heterogeneity in preferences and skills regarding housework. The find that in the USA there is a strong association between earning potential, as operationalised by education, and leisure time, although a comparison with Danish data suggests that the relation does not unambiguously hold there.

Thus, the empirical evidence suggests that relative resources are potentially important, but they do not offer a particularly satisfying account of gender disparities in household labour. Although support is given to materialist understanding of gender relations, there still seems to be an independent effect of gender itself. These theories offer no account of this gender effect, and indeed on a theoretical level, outcomes that violate gender norms are possible within these understandings of household allocation. However, the data suggests a strong adherence to gender norms, which suggests that gender ideology is itself a potential explanatory factor. Agarwal (1997) argues that power needs to be understood as ideational as well as monetary, and that gender is highly relevant in a household bargaining situation. Gender norms set limits on how bargaining can occur and even what outcomes can be bargained over; so an egalitarian outcome may not even be in the list of potential outcomes in the first place. There may also be gendered differences in each partner's perceptions of their own needs, rights and responsibilities. The next section considers several possible ways in which gender can influence household outcomes.

2.2.3 Gender

The key contribution of structural perspectives to the question at hand is to move beyond ontological individualism and explore the possibility of a two-way relationship

between individuals or households and the context in which they are situated. Thus, context is conceptualised as more than a mere aggregation of micro-level behaviours, but something that shapes behavioural outcomes themselves, and reinforces behavioural continuity.

This review considers three approaches to explaining the potential causal impact of gender norms on household outcomes, and the extent to which they can explain deviations from what is apparently rational if we consider only relative resources and the division of paid work. The first is the way in which our understandings of appropriate roles for men and women are formed in childhood, passed on from passive observation and direct influence of one's own parents, and then confirmed by the societal status quo. The second is the way in which gender is valued and actively reproduced in everyday activities, and the way in which the need to display gender is part of the household calculus along with the materialist aspects of time and labour allocation. The third aspect is the way in which men and women may perceive the same activity or situation differently, and how this makes ostensibly unfair arrangements perceived as fair by those within them.

Gendered socialisation

The process of socialisation into gendered roles begins in childhood as norms are transmitted to children by their parents. Part of a wider process of inducting new humans into the values and acceptable standards of their society, gender socialisation is the process through which individuals learn to become feminine or masculine, and learn and internalise norms about gender roles and inequalities (Mackie 1987). Theories of how norms are transmitted to children fall into three camps. The social learning perspective (Mischel 1966) holds that sex-typed behaviours are learned through observation, and then reinforced by rewards for conforming and sanctions for deviation. Parents have a key role to play in administering these sanctions and rewards, although other agents do so as well. Thus sex differences in behaviours are a result of systematic differences in the behaviours to which boys and girls are exposed, and their different experiences of the consequences of adopting these behaviours.

A somewhat different perspective on this process is that of developmental cognition (Kohlberg 1966), which almost reverses the sequence. The starting point is the cognitive organisation of social role concepts around physical dimensions. The child categorises themself physically as male or female, then positively values the associated acts and

objects and acts consistently with this gender. Parental behaviour plays a role insofar as a child is likely to identify with like-sex figures, particularly the like-sex parent, but the development of masculinity or femininity occurs even in the absence of a like-sex parent. As Kohlberg puts it:

> The social-learning syllogism is: "I want rewards, I am rewarded for doing boy things, therefore I want to be a boy". In contrast, a cognitive theory assumes this sequence: "I am a boy, therefore I want to do boy things, therefore the opportunity to do boy things (and to gain approval for doing them) is rewarding" (Kohlberg 1966:89).

A third perspective is derived from psychoanalytic theory. Parsons (1956) takes Freud's stages of psychosexual development as a starting point but links it to family structure specifically, to consider the development of gender roles and identity as children progress through these stages. The upshot is the direct but not necessarily conscious impact of parents on their children's gender identities. The nuclear family contains a father, who is the 'instrumental' member providing income and status, and a mother, the 'expressive' member who is responsible for caring and household work. The nuclear family socialises children into taking on the appropriate role; thus boys are socialised into becoming instrumental fathers, girls into expressive mothers.

These somewhat different approaches all imply that children reach maturity with preferences that are not simply intrinsic to their personality but systematically different by gender because they have internalised the gender system. To establish empirical evidence of this type of socialisation, we would expect to see some correlation between parental behaviours and attitudes and those of their children. The only relatively recent British example of this type of study is by Burt and Scott (2002), who use data from the British Household Panel Study collected between 1994 and 1997. As this study interviews all adults in the household, as well as children over 11, inter-generational links can be made between the adults' attitudes and those of their children. The results suggested an association between parental and child attitudes, although greater similarities were found within generations than between them. Interestingly, the generational shift towards greater egalitarianism is stronger in girls, who are more dissimilar to boys in their attitudes than women are to men in the adult sample. It should be noted, however, that the study does not make use of any of the possible control variables such as parental education or household income, which may also exert an effect.

Recent studies from other countries have suggested some association between parental

attitudes and behaviours and the gender role attitudes of the next generation. Van Putten et al (2008) investigate the impact of mothers' employment on their daughters' employment in a sample of Dutch women. They find that maternal employment affects the number of hours worked but not whether a woman participates or not. However, the effect is small, with maternal participation yielding a positive coefficient implying an extra 1.9 hours per week; the main determinants of a woman's labour force participation are her own educational level and the number and ages of her children.

Most of this research has taken place in the United States, which generally finds some inter-generational association of gender role attitudes and behaviours. Cichy et al (2007) find associations between parental and offspring gender attitudes, but a generational shift that, like Burt and Scott, they find to have occurred more strongly in girls. The impact of parental behaviours has also been found to be important. Fan and Marini (2000) find that the educational level of parents and whether the mother is in employment influences their children's gender role attitudes in later life, and Cunningham (2001) finds parental division of labour to be a predictor of their children's subsequent division of labour in their own households. Marks et al (2009) look at both parental attitudes and parental behaviours, and find both to exert an independent influence on their children's gender role attitudes. Most of these studies employ data with quite small sample sizes, and sampling methods that are non-random, and geographically and demographically restricted. However, the benefit of these datasets is that they contain much richer information on gender attitudes and household division of labour than a larger, more nationally representative sample might have, which allows a better operationalisation of theories of role transmission.

Gendered display

The gender display perspective emerged as a counterpoint to theories based on ideas of exchange and relative resources, based on the contention that gender adds to this calculus, or even potentially subverts economically rational outcomes. The 'doing gender' approach (West and Zimmerman 1987) is the conceptualisation of gender as something that is actively produced and reproduced through the performance of stereotypically gendered behaviours. In the household division of unpaid domestic work, the performance of housework is feminine, and its avoidance is masculine:

> It is not simply that household labour is designated as "women's work",

> but that for a woman to engage in it and a man not to engage in it is to draw on and exhibit the "essential nature" of each. What is produced is...the material embodiment of wifely and husbandly roles, and derivatively, of womanly and manly conduct (West and Zimmerman 1987:144).

Berk (1985) argues that the idea of gender as something that is produced can help to explain apparently inefficient outcomes and the perception of these as fair. If gender is a valued household good in itself, then it should be included in the output from the division of labour. In this way, the masculinity and femininity produced by the performance of particular household activities enters the calculus of costs and benefits in dividing household labour, alongside the more material aspects of relative potential wage and productivities. The performance of housework has also been conceptualised as a way to neutralise gender 'deviance'; as women take on paid work and contribute economically to the household, they might do more housework, and men less, in order to maintain or re-establish gendered household roles (Brines 1994).

If gender enters into the household calculus in this way, we might expect to see outcomes that are irrational from a time allocation point of view, but are consistent with the performance of gendered tasks as a competing priority. Kalenoski et al (2009) look at the 2000 United Kingdom Time Use Survey to examine how men and women's time in paid work and care responds to a change in their partner's wages. They find this response to be highly gender asymmetrical; while women respond to men's wage increases by doing more childcare and less paid work, an increase in women's wages only leads to men doing more childcare at weekends, and the increase is only in passive, secondary care activities. This is consistent with the proposition that they avoid what might be a rational increase in care work, in order to maintain their masculine role and identity in the household. On the other hand, Yee Kan (2008), analysing data from the British Household Panel Survey, does not find any evidence that routine housework is undertaken or avoided to compensate for non-traditional earnings arrangements, although the author admits that the questionnaire-based estimates of housework in this survey are potentially less accurate than the diary-based estimates in the Time Use Survey.

Similar studies in other countries find a similar lack of parental substitution. Pailhe and Solaz (2008) find that French mothers and fathers do not replace each other even when it is rational for them to do so. Parental time is only partially substitutable, flowing much more from men to women than vice versa, and varies with prestige of task, suggesting that men are able to be selective about their domestic contribution. Wang and Bianchi (2009) find evidence that US fathers with an employed wife do more childcare, partic-

ularly when children are young, suggesting that wives are able to use their economic power to some extent. However, they suggest that families in which mothers work when children are very young are a special type in which women are especially committed to the labour force and likely to be in good jobs that afford them an unusual amount of economic power. Also in the USA, Parkman (2004) finds that, although both spouses respond to a change in relative earnings with changes in performance of household tasks, men's response is smaller. Even in Norway, a country associated with a high level of gender equality in parenting, men's response to their partner's working hours is limited, and suggests that couples substitute external services rather than fathers' time when women reduce their time spend caring for children (Kitterod and Pettersen 2006).

Qualitative research is a useful complement to the survey-based research described above, as it better placed to uncover couples' motivations and feelings about the division of household labour, and get to the heart of why they divide tasks in the way they do.

Two studies of employment disruption in working-class households illustrate the way that couples respond when a previously 'optimal' gendered division of labour is no longer economically rational. Charles and James (2005) examine the impact of sole earner men losing their jobs due to de-industrialisation in South-West Wales, and becoming dependent on their partner's income. Although in practice their households took on egalitarian or even female-breadwinner patterns of behaviour, this was seen as a pragmatic and temporary response to circumstances rather than any shift in gender roles. Both men and women within the couples maintained considerable attachment to the ideology of man as breadwinner, with a change in circumstances seen as an aberration to this rather than a reason to question the underlying logic. Legerski and Cornwall (2010) interview families in a similar situation in the United States. They found that men's increased involvement in the housework was minimal, and constructed as something different; for example "picking up" groceries on the way home rather than planning and shopping for them, and "preparing food" rather than cooking. This research suggests a great deal of discomfort with performing opposite-gendered tasks, to the extent that couples may even understand the same task in a different way. When men cannot avoid housework, it is constructed as different from the housework that women do, and similarly female earning is constructed as secondary even when it is an essential or even sole source of income.

Gendered perceptions

A third perspective on the role of gender in household decision-making centres around the gendered differences between objective and subjective perceptions of fairness and satisfaction. This 'gender justice' perspective (Thompson 1991; Major 1993) holds that inegalitarian or unequal domestic arrangements may not be perceived as such by women, who then do not agitate for any change, thus perpetuating the inequality. This is because of the different way that each partner's contribution to the household is perceived; men get disproportionate credit and gratitude for the household work they do, from both themselves and their partners, and their participation is not compared to their partner's but to that of other men. Furthermore, women need only perceive that they have a voice in household decisions to perceive these as fair, even if what resulted in practice was profoundly unequal.

Most of the empirical work around perceptions of household arrangements has not been conducted in the UK. One exception is van Hooff (2011), who does not directly work from the gender justice framework outlined above, but the results of the study are relevant here. Dual-career couples between the ages of 20 and 35 were interviewed about their household arrangements and how these arose. Strikingly, there seems to be little examination of the assumptions underlying the division of household labour. Unequal sharing of domestic tasks was justified on the grounds of the male partner working longer hours, without questioning why it is the man who works long hours. Similarly, women do more housework because they claim to be better at it or to have higher standards, without considering the way in which women are socialised into performing household tasks and being judged on their performance.

A number of studies from other countries have found a similar subjective blindness to objective inequalities. A Canadian study by Beagen et al (2008) found, like van Hooff (2011), that couples accept justifications such as men's longer work hours without considering their underlying gendered dimensions. Baxter (2000) finds that, in Australian couples, it is not how much housework a man does that predicts satisfaction with arrangements, but whether he does any at all, lending support to the idea that men get disproportionate credit for a small household contribution. Cross-national studies (Braun et al 2008; Greenstein 2009) also find evidence of national level comparison referents, finding a link between overall gender equality in society and perceptions of fairness in the household. Women in egalitarian countries are less likely to accept inegalitarian household arrangements as fair. In Sweden, a country with fairly high overall egalitarianism, Nordenmark and Nyman (2003) do find a link between actual and perceived fairness, however couples

still find ways to justify inegalitarian arrangements through gendered conceptualisations of their housework contributions.

2.2.4 Policy

This final section will look at the theoretical and empirical work on the impact of policy on the division of paid work and care in the household. The reconciliation of work and care occurs within an institutional context of family policy support and the normative understandings that both underpin, and are reinforced by, these policy provisions. The empirical literature has shown considerable variation across European countries in the extent to which gender equality is supported by the insitutional arrangements; indeed, in some countries equality is actively undermined. However, what this literature also suggests is that the role of policy plays out alongside the other aspects of the household decisionmaking calculus that have been discussed here, and that a supportive policy environment is not in itself enough to facilitate gender equality.

A key preoccupation of the theoretical social policy literature has been to understand the way in which the welfare state mediates the individual's relationship with the market. A key concept often used to understand this is Esping-Andersen's idea of decommodification; the extent to which they depend on market work to meet their needs, and the extent to which these needs are met by the state (Esping-Andersen 1990). However, feminist theorists have criticised this concept as being inadequate for understanding women's well-being, because ignores the implications of women's unequal care burden on their ability to participate in paid work, and their resulting dependency on men (Lewis 1997).

Feminist welfare state literature (e.g. Sainsbury 1994; Sainsbury 1996; Pfau-Effinger 1998) seeks to specifically understand women's relationship to the market and the welfare regime, and how the practicalities of work and care intersect with cultural norms, which in turn underpin the policies themselves. On a practical level, family income under different arrangements depends on the state support available in these arrangements. The extent to which the state contributes financially towards the cost of care impacts the extent to which mothers are able to engage in market work. On a normative level, the welfare state is organised around certain assumptions about the division of work and care, and its support for these arrangements can help to perpetuate them.

Methodologically it is very difficult to translate these complex theoretical concepts into empirical measures of welfare state 'performance' (Lewis 1997). However, the aim of the

research being carried out here is not to try and identify regime types, or say whether these theories are adequate descriptions of cross-national variation in welfare states. The aim is to link these key practical and normative aspects of the welfare state to the division of paid work and care, and women's employment outcomes. In essence, the welfare state can be thought of as adding an additional dimension to the household calculus of relative resources and gendered practices, by privileging certain arrangements over others through the way in which it supports families. A considerable body of literature exists that attempts to analyse the impact of these different policies, by exploiting national or regime level variations in social policy to see whether these are related to outcomes in these countries.

There are considerable cross-country variations in mothers' employment and the penalty to motherhood, and to some extent these can be related to features of the policy regime that either encourage and facilitate or discourage and disincentivise mothers' labour force participation. Countries with the greatest institutional support for working motherhood generally have lower penalties to motherhood; in France and the Netherlands this is facilitated by extensive childcare (Davies and Pierre 2005), and Sweden's employment supportive policies tends to put it in the lead for maternal employment, although this lead is diminishing as other countries begin to catch up (Kenjoh 2005). However, low penalties to motherhood can also be seen in countries with more limited policy provisions. For example in the USA, perhaps because a lack of institutional support forces them to return quickly and work full-time (Gangl and Zeifle 2009), and in the Southern European welfare states, perhaps due to the assistance of family networks in facilitating maternal employment (Davies and Pierre 2005). It certainly seems to be the case that generous maternity leave, however well-intentioned, can have a depressive effect on women's employment prospects if mothers take long leaves (Rhum 1998; Fuwa and Cohen 2007; Stier and Mandel 2009).

A number of studies look at the other side of the coin from mothers' employment, that is to say the division of labour in the household, and policies that might increase fathers' participation in childcare. Working motherhood itself does not necessarily translate into a more egalitarian division of labour in the household. For example, France has good institutional support for working motherhood but a gendered household division of labour, while the UK has less support for working motherhood but a less gendered division of labour than France (Crompton and Lyonette 2005). The policy environment can also influence the way in which couples divide work and care, in conjunction with prevailing gender norms.

The most obvious example of policies aimed at addressing directly the gender inequalities in the household are found in the Scandinavian countries. In Sweden and Norway, parental leave is transferable, and income replacement whilst on parental leave is high. This high remuneration is crucial because a lack of remuneration may well be a reason why in, say Germany, which has had shared leave since 1986, fathers' uptake is still very low (Geisler and Kreyenfeld 2011). In the Nordic countries, an example of regimes with strong defamilialisation, policies are explicitly designed to support dual-earning families and gender equality (Duvander et al 2010; Bernhardt et al 2008). To encourage men to participate more in childcare – recognising the importance of this for gender equality – both countries have introduced a special quota that researves a portion of parental leave just for the father. This was a month initially, and then extended ten weeks in Norway and two months in Sweden (Duvander et al 2010). This quota has had some impact, but it has not precipitated a fully egalitarian division of labour. Evidence from Norway suggests that fathers use the leave reserved for them in the majority of cases, but most men do not take more than this and the way they use it may be quite different from how mothers use it, as they still see their role as different (Brandth and Kvande 2009;1998: Lappegard 2008). The proportion of men using parental leave is higher in Sweden than it is in Norway, although this may be due to the fact that the employment requirements are less strict (Duvander et al 2010).

The limited impact of policy may be because it is just one aspect among many in the household calculus, and not even the strongest influence at that. Gershuny and Sullivan (2003) find that, although there is cross-country variation in the division of household labour, the trend over time is towards convergence in patterns of division of labour. Despite considerable regime differences, policy making at the EU level may be bringing about a degree of homogeneity in family policy provision. Furthermore, there is evidence that policy may be eclipsed in importance as an explanatory factor in the division of labour, by the other influences discussed in this chapter. Geist (2005) finds a regime-level effect of less equal sharing under conservative welfare regimes, but the key theoretical perspectives discussed earlier of human capital, relative resources and gender all have explanatory power as well. And to take a specific contrast, although Sweden has a more institutionalised system of policies to promote gender equality than Norway, and indeed a more equal division of household labour, the same financial and normative factors still influence division of labour in both countries (Bernhardt et al 2008).

Summary

This survey of the literature has identified two very different conceptualisations of the division of work and care, and of the reasons that mothers face labour market penalties. One perspective sees these phenomena as a result of rational actions taken by individuals, acting alone or at the household level. The individual chooses the investments they make in their labour market potential, and the labour market rewards them for these investments. It is not in the interests of employers to employ on any basis other than human capital considerations, therefore no structural barriers exist in the accumulation and conversion of human capital. At the household level, the division of earning and caring tasks between partners is based on their comparative advantage in each type of task, part of which is their earning potential in the labour market, and the other part of which is their efficiency in childcare tasks.

A competing perspective sees these processes very differently. It argues that human capital accumulation is not completely voluntary, but subject to a number of barriers and inconsistently rewarded. In imperfectly competitive markets, or in sectors such as the care sector, there is plenty of scope to discriminate and undervalue, and there is evidence that this occurs. At the household level, the division of labour is shaped by power relations and normative factors as well as rational considerations, and this is why time allocation perspectives are only partially supported empirically. There is also the strong influence of the prevailing policy environment, and the way it not only alters a family's costs and income, but itself perpetuates normative ideas about parenting roles.

At the heart of the theoretical debate, then, is the well-established ground of structure versus agency; in this case, the extent to which mothers control their own economic futures, and the extent to which they are prevented from doing so by external constraints. The next chapter takes this tension as its point of departure, and tries to reconcile the competing perspectives within a theoretical framework that leaves room for both.

Chapter 3

Theoretical Framework

This chapter will draw on the perspectives outlined in the previous chapter to develop a framework for the analysis of gender inequality in the home and the workplace. It attempts to bring together the agency-based and structure-based approaches using Amartya Sen's capability approach (Sen 1985; 1993; 1999), in order to develop a model of constrained choice that leaves room for insights from both perspectives and circumvents the deadlock between them. This chapter starts by outlining the main tensions between the two schools of thought, before introducing the capability approach and explaining how it attempts to resolve these. It then develops the framework from which the hypotheses for the subsequent empirical work will be derived, outlining the theoretical basis for the overarching hypothesis of stalled change that runs throughout the thesis.

3.1 Points of contention

The previous chapter suggested a range of policy and non-policy factors that have been put forward to explain the dual problem of mothers' labour market disadvantage and higher unpaid work burden in the home, and roughly divided these into those emphasising agency as the key driving force, and those identifying structure. The two types of perspective both make contributions to understanding the problems under consideration, but they clash on some key issues, mostly around the assumptions about freedom and choice that are made in the economic models of labour force participation and household decision-making. This section outlines these disagreements and identifies the points of theoretical stalemate that emerge when the empirical evidence becomes

consistent with two very different interpretations.

3.1.1 The agency/structure conflict

According to the agentic perspectives, mothers' labour market outcomes are the result of a trade-off between market remuneration and the time and flexibility to fulfil domestic care responsibilities. The outcome is arrived at by rational decision-making, according to the relative productivities and preferences within the household. The empirical research presented in the previous chapter does support the implications of a rational time-allocation process to some extent. This research (e.g. Blackwell 2001; Joshi et al 2007; Connolly and Gregory 2008; Malo and Munoz-Bullon 2008) shows that employment history characterised by time out of the labour market to care for dependants and part-time or flexible working does carry a penalty in terms of salary and status; however, it also shows that the situation cannot be fully explained by purely rational considerations. This is because agency-centric theories assume the absence of certain practical and normative constraints on freedom of choice, and therefore their understanding of the phenomenon is incomplete and their explanatory power is limited.

Such assumptions put these perspectives in direct contrast with structural perspectives that highlight such constraints. Those of a more structural persuasion question why mothers would choose the disadvantages they face, and point to the practical and normative barriers to choice, both in the labour market and in the way they arrange work and care in the household. The main points of contention with the orthodox human capital account of labour market outcomes can be roughly summarised in three key challenges. The first takes issue with the assumption that human capital investments are choices; it can be argued that these are in fact also shaped by practical barriers that mothers face in combining work and care, and normative barriers in the form of discrimination (Cuddy et al 2004; Fuegen et al 2004; Correll et al 2007; Benard and Correll 2010) and the segregation of men and women into particular occupations (Manning and Petrongolo 2008; Mumford and Smith 2009). Secondly, the assumption that women choose to take the damaging time out of the labour market does not take into account the way in which leave entitlements are gendered; only women can take the leave in the UK, and it is on them that the career penalty subsequently falls (Rhum 1998; Fuwa and Cohen 2007; Stier and Mandel 2009). Similarly, the assumption that working mothers choose reduced or flexible hours because this is what they want in combining their work and care responsibilities ignores the fact that these responsibilities fall to them by default, and cannot be avoided unless the state or their partner is willing to share them (Baldock

and Hadlow 2004). Thirdly, the assumption that these rational processes operate at the level of household division of labour has also been challenged, as the prevailing policy and normative climate affects the options that are practically expedient and normatively acceptable (Sainsbury 1996; Pfau-Effinger 1998).

Therefore the key matter to consider here is the extent to which mothers' career trajectories are the result of rational decision-making and division of labour, and how much they are shaped and limited by the prevailing policy and normative climate. The latter is what problematises the whole issue of work-family reconciliation; if the present situation is a result merely of choice then there is no need to change the policy provisions. However, if structural factors are responsible for the present situation then there is potentially something that policy could do to give couples options that they desire but do not currently have. The underlying framework needs to allow for the consideration and empirical examination of both sides. This is attempted in the next section through the use of the capability approach.

3.2 The capability approach

The theoretical framework that will be developed here aims to reconcile these insights through the concept of situated agency that Amartya Sen has developed in his capability approach (Sen 1985; 1993; 1999). This is a recognition of the existence of agency, but in way that incorporates the likely existence of constraint, and attempts to understand the extent to which genuine choice is available. This kind of choice implies not just the absence of the most formal, visible or tangible constraints, but a more nuanced understanding of constraint and a recognition of the need for positive support to achieve desired outcomes. This then provides a normative yardstick in the assessment of policy; the aim is to establish the extent to which policy enables or restricts genuine choice. This section aims to demonstrate that this approach is not simply an abstract philosophical device, but that Sen's own work and the applications of his ideas demonstrate a clear relevance and usefulness to the analysis of this topic. It will first of all give a general summary of the approach, and then relate it directly to the topic of gender inequality in the labour market and the home.

3.2.1 What is the capability approach?

The capability approach conceptualises a series of steps from the individual and their personal resources, to the outcomes that they eventually choose, via the constraints they face in making this conversion from resources to outcomes. It is by incorporating these multiple stages that the approach can usefully reconcile the different theoretical approaches in the division of work and care. However, as a preface to understanding these 'building blocks' of the capability approach, it is helpful first of all to contrast it with the explanatory paradigms to which it claims to offer an alternative. The conceptualisation of choice and well-being departs from the conventional economics understanding of these terms, by positing something that is both a better reflection of well-being and a superior basis for interpersonal comparison.

What is it trying to move away from?

The capability approach challenges the philosophical and conceptual heart of economics; the central concepts of utility and preference, which are ubiquitous throughout economics, including the human capital theories discussed above. The central concern of economics is not equality, but efficiency, preferably Pareto efficiency; a situation in which no person can be made better off without making someone else worse off and is therefore an equilibrium. This implies that there is a conceptualisation of what makes someone better or worse off, and indeed the metric used is generally 'utility', which broadly speaking is a level of satisfaction with an outcome. Economic rational choice implies that individuals choose the outcome that gives them the greatest utility given the possibilities available to them; the exact outcome will depend on their preferences.

Sen (1985) argues that, despite utility having several possible definitions or operationalisations, none satisfactorily capture well-being. It cannot be defined as choice, as these are not necessarily made solely on the basis of one's own well-being. Nor happiness, which ignores the other dimensions or mental states that are relevant to well-being. Nor can it be understood as the fulfilment of desire, as it is impossible to compare desire between individuals, as they represent a compromise with reality. This is Sen's key issue with any understanding of utility that relies on the individual's own subjective evaluation of their position; this evaluation is so heavily conditioned by the situation to which they are habituated that it cannot possibly be compared against someone in a different situation. There are many reasons why someone who is objectively speaking deprived may not

be unhappy in the utilitarian sense, none of which imply high levels of well-being; they may be used to their present situation, unaware of anything different or the possibility of anything different, or they may realign their feelings about their situation to avoid feeling unsatisfied or disappointed (Sen 1990).

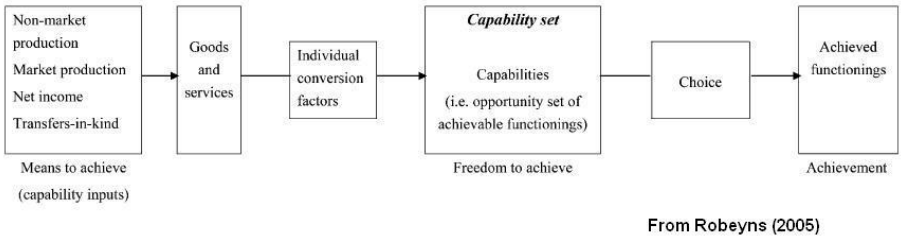
To illustrate the inadequacy of a utilitarian approach, Robeyns (2005) contrasts the utilitarian and capability based understandings of the gender pay gap. Under utilitarian metrics, a gender pay gap is only problematic if women are dissatisfied with being paid less, but the capability approach eschews this total reliance on subjective mental states because they are so conditioned by external factors. It is not enough to simply measure women's happiness at their situation or, worse, as much economic theory seems to do, assume that they have achieved maximum utility by virtue of the fact that they have 'chosen' the prevailing outcome. Outcomes must be objectively and intrinsically valuable, not merely viewed as valuable by those experiencing them, and representing the least worst possible outcome.

Thus, Sen has devised the capability approach as a better way to measure well-being, in a way that provides this objective and interpersonally comparable evaluation of well-being. Furthermore, it is explicitly committed to equality of well-being as the desired distributional outcome. In this conceptualisation, equality is defined as equality in objects of value, which Sen calls *functionings*. These "represent parts of the state of a person – in particular the various things that he or she manages to do or be in leading a life." (Sen 1993:31). Well-being is not defined by a particular functioning; rather, an individual's well-being is defined by the size of the set of functionings available to them from which they can choose. Interpersonal comparison is made on the basis of people's "freedom to live well", or "well-being freedom" (p201), which is measured by the extent to which they can choose valuable functions. It is the process of listing and comparing these potential functionings that forms the evaluative space for measuring inequality. For Sen, there is no single list of valuable functionings; it is context specific and something that should be decided by democratic process (Robeyns 2003). The quest to identify, rank and measure valued functionings is the aim of the exercise.

What does it offer instead?

The capability approach conceptualises a process by which individuals convert the resources they have into the desired functionings, via intermediate stages of constraint and preferences, as summarised in figure 3.1.

Figure 3.1: The building blocks of the capability approach



The starting point is the *inputs* an individual has. These are the resources they have at their disposal; the means through which they achieve valued functionings. This encompasses a range of goods and services that includes but extends beyond the purely income-based.[1] For some approaches to measuring welfare, such as income-based approaches, this resource stage represents the end point as well. However, Sen sees these inputs as only the means to achieving valuable ends, and crucially there may be a great deal of variation in the extent to which individuals can turn these means into ends. Thus he argues that:

> ...an index of opulence, or of primary goods, cannot be seen as an index of well-being as such. Nor can the "advantage" of different persons (or groups) be ranked on the basis of the primary goods index, because of interpersonal variations in what people can do with primary goods, depending on biological, social, and other parameters (Sen 1985:200).

These parameters represent the next stage of the process, which Sen calls *conversion factors*. As with functionings, the relevant conversion factors are context-specific, but they represent the complex multi-level and interacting factors that act as barriers to the achievement of functionings. Crucially, they will vary from person to person, and may even vary systematically by groups in society. This leaves room for both individual heterogeneity and group-based disadvantage in the extent to which any given individual is free to achieve valued functionings. The set of available functionings that an individual can truly achieve, given the inputs they have and the conversion factors they face, is called the *capability set*. It is at this point that the individual can exercise choice in selecting their most preferred *functionings* from the *capability set*. It is important to incorporate choice into the model at this point, because individuals "differ a good deal from each

[1] The more complex the functioning, the more likely it is that the necessary resources will be more than income based; for example money cannot necessarily buy successful inter-personal relationships.

other in the weights they attach to these different functionings – valuable though they may all be" (Sen 1993:31).

3.2.2 Relating the capability approach to my work

My use of the capability approach's framework has two main rationales. In the abstract, it is a way to understand situated agency and reconcile the key structure-agency tension between the theoretical perspectives, and provides the first principles from which the research departs. More tangibly, it has much congruence with the two primary aspects of the work here; understanding co-operative conflict in the household, and understanding the role of policy in people's lives.

Several studies of work-family reconciliation have used the capability approach as their theoretical foundation. The rationale given for this centres around its simplicity, its neutrality with respect to actual outcomes, and the way in which it can encompass agency and structure in its conceptualisation of how outcomes are arrived at (Lewis and Campbell 2007; Hobson and Fahlen 2009; Lewis 2009; Hobson 2011). These are all aspects of the rationale for using the approach here. These studies starkly demonstrate the way in which capabilities fall short of aspirations, and how policy across the EU fails to varying degrees to address this disparity. Similarly, this research aims to understand the extent to which the UK policy environment helps families to achieve the reconciliation of work and care. A related endeavour in other studies is to use the approach to consider the link between inequality and the extent to which the ideological foundations of a policy incorporate Sen's positive conception of freedom (Deakin 2005; Carpenter 2009). This also relevant here, and Shapter 5 considers the implications of a laissez-faire approach to family policy as contrasted with a more interventionist one, which nonetheless still does not facilitate certain work and care options. These other studies have taken a different analytical approach from that pursued here; their move from theory to empirical enquiry is different. For example, Hobson and Fahlen (2009) compare data on aspirations and actual outcomes to make a direct measurement of the gap between them. By contrast, the approach here is to use the theoretical framework to guide variable selection in regression modelling, and interpret the resulting estimates. Thus, the research here builds on, but also departs from, the existing work.

The capability approach posits a different understanding of choice to the orthodox economic literature; it holds that agency does exist, but only insofar as it represents an active choice between genuinely available alternatives. Although economic theory does not assume unlimited choice, it does assume that the constraints on choice are tangible and uniform. That is to say that a given level of resources results in the same set of options for everyone with that level of resources, and any differences in their outcomes are due to heterogeneity in preferences. Any normative influences are assumed to operate through preferences; counter-normative options exist, but it is in most individuals' preferences to act within normative boundaries. The capability approach challenges this understanding, by offering an intermediate stage between resources and preferences; the stage at which many apparently available options are in fact made unavailable due to practical or normative constraints.

Therefore in applying the approach to this research, there is scope to augment rational or choice-based explanations, such as human capital and time allocation theories, with the wide range of theories about the form that constraints on choice might take. So for example, human capital theory might see part-time employment as a rational way for mothers to reconcile work and care responsibilities, but this approach has been criticised for ignoring a normative system that makes it virtually impossible for her partner to choose this option instead. Indeed, they almost certainly do not, even if this is apparently both desired and rational from a human capital perspective. The capability approach would argue that this apparent paradox occurs because a couple are not equally free to choose between all the possible earning and caring options; normative conversion factors mean that the latter is not truly within their capability set.

It is this space between what is theoretically possible given a set of resources, and actually possible given a set of constraints, that is both analytically interesting from a social science point of view, and relevant from a policy perspective. If outcomes are purely a matter of choice or entirely predetermined, then there is nothing to analyse and nothing policy can do about them. However, in the case of work-family reconciliation, the capability approach allows for the possibility that there is scope to understand the gap between aspirations and reality, and potentially to narrow it through policy intervention. It is this positive conception of freedom on which this research is based. Human capital approaches can never fully explain the gender pay gap or the unequal division of household labour because they understand choice in a negative way, as the absence of formal constraints, rather than something that may need to be facilitated. This research

proceeds, as the capability approach does, from the assumption that external support may be necessary in order for people to have the true capability to achieve their desired functionings.

Conceptual links

The overarching aim of this research is to understand the role of policy in the way that couples reconcile paid work and care. Therefore there are two inter-related aspects to this; to understand the way in which labour is divided in the household, and to understand the way that policy impacts decision-making. The capability approach provides a theoretical lens for both of these; a model of co-operative conflict with which to characterise household decision-making, and an evaluative space in which to examine the impact of policy. This section will deal with each of these in turn.

The bargaining approaches to household organisation discussed in the previous chapter (e.g. Manser and Brown 1980; McElroy and Horney 1981) started from an assumption of competing interests and presented a way in which these might be reconciled until a solution is reached. Sen draws on these, using the idea of *co-operative conflict* as a way to characterise household interactions (Sen 1990). He argues that bargaining theories represent an important aspect of household decision-making; the mixture of co-operation and conflict. In other words, finding a collusive agreement because this is better than breakdown, but also acknowledging that not all solutions will be equally in both partners' interests. However, he argues that, although these models represent an improvement on the economic models that ignore conflict, they make the false assumption that both agents in the 'game' have a clear and unambiguous perception of their own interests. In reality, these perceptions are affected by social norms regarding the value and appropriate division of household tasks.

The theoretical perspectives discussed in the previous chapter can shed much light on the way that agents' perceptions may be influenced, and how household outcomes are potentially affected by the couple's gendered perceptions and interpretations of what they contribute to the household and what they deserve in return for this contribution (Thompson 1991; Major 1993). This is related to Sen's idea of "social technology" to describe household activities that are essential to achieving any economically productive outcomes, but are constructed as parasitic on wage labour and of low financial value (Sen 1990). This leads to women perceiving their own deserved share of household resources as lower than it is, and therefore they do not bargain for the share they truly deserve,

but rather the share they believe they deserve.

This discussion emphasises the importance of finding an objective measure of well-being, rather than relying on women's own perceptions of their interests and preferences. It is precisely these gendered ideas of entitlement that make subjective mental states and preferences so inadequate in understanding well-being equality. And this is why it is important not to proceed directly from resources to preferences to outcomes, but to understand the options that are truly available to couples, taking into account the way that these options may be constrained by gendered norms about parenting. The idea of a capability set can also help us to make sense of the impact of policy on the constraints couples face in balancing work and care, by providing a simple research question; does this policy expand the capability set of work-care functionings? It is focussed not on outcomes directly, but on the choices available and the extent to which choice is facilitated through policy. Thus it provides provides the evaluative space in which policy can meaningfully be analysed, without prioritising any particular outcome.

3.2.3 Potential pitfalls

Although the above discussion has demonstrated the relevance of the approach and the key benefits of using it, there are some potential pitfalls that also need to be considered. Conceptually, the main problem is with having freedom as a goal, when equality may in fact demand the opposite. The main practical problem is how to operationalise an abstract concept, especially with quantitative data.

The normative goal of the capability project is the freedom to achieve valued functionings; that this freedom should be as large and as equal as possible. However, this is problematic because in a world of finite resources, one person's freedom to achieve valued functionings may in fact impinge on another's. This problem might be compared to the similar ones that arise with the application of human rights; for example that one person's right to freedom of speech might impinge on another's right to practice a religion. Gasper and Staveren (2003) argue that distributive justice may in fact depend on the restriction of freedom for some, in order to facilitate others'. Specifically to the problem at hand, if the goal of work-family reconciliation policies are to give mothers the freedom to choose their most preferred arrangement, this may not be possible without restricting men's freedom in the choices they currently have. This almost returns full circle to the concept of Pareto efficiency in economics; if the current situation cannot be improved for women without making men worse off, then an equilibrium has been

reached and will not change without some kind of exogenous shock through intervention. Unfortunately for the capability approach, it both demands such intervention to achieve distributive justice, and provides no answers to the question of what to do when people's freedoms become mutually exclusive.

Gasper and Stavaren (2003) argue that this problem undermines the use of the capability approach in feminist economics, because freedom is not the answer to the issues it concerns itself with, in fact is it arguably the problem. Furthermore, parents can never enjoy complete freedom because someone must assume responsibility for meeting the financial and care needs of their offspring (Lewis and Guillari 2005). The only way out of this dilemma is to abandon any attempt at absolute freedom maximisation and start from two assumptions. The first is that a child has a minimum level of needs that must be met, and that this is the position from which parents are beginning. The second is that the normative goal is not absolute freedom but gender equality of freedom, even though freedom will be constrained for both parents and gains in freedom for some may come at the cost of some freedom for others.

The other major pitfall of the approach that is particularly relevant to this research is that, although the capability set is a suitable theoretical construct, it is difficult to operationalise in practice. It is by definition hypothetical, as it is not just the observed outcome, but all the possible outcomes a person could have chosen. These possibilities are not observable to anyone except the individual themselves, and their assessment of these possibilities is subjective, which is something that the capability approach is trying to avoid. Thus we are in danger of losing the rationale of the approach to the practicalities of operationalisation (Gasper 2007). The actual empirical exercise either has to use subjective valuations of possibilities, or objective data that is only on actual outcomes and not possible ones.

The question is therefore how plausibly obtainable data, and in particular quantitative data, can illuminate the extent to which an individual enjoys the freedom to choose valued functionings. The specifics of the operationalisation here will be outlined in the methodology chapter, but briefly here I argue that the data can live up to its promise. The research compares two cohorts of mothers. There is extensive data on the input stage of the process, so I can establish differences in outcomes between those who are apparently identical in terms of the resources they have at their disposal. The capability approach can be used alongside the other available information to understand why these differences exist; why their ability to convert these resources may not be the same, and if the differences occur at the stage of choosing among available functionings. There is

data on their attitudes towards the division of work and care, so the shortfall between aspiration and reality can be shown and used to indicate valued functionings that are not in the capability set, as per Hobson and Fahlen (2009). It can also indicate whether there are systematic differences between the two cohorts in what they want from family life, and thus what they choose from available functionings. This information can be combined with what we know about the prevailing policy and socioeconomic factors that influence the available options, and how this differs between the two cohorts. Therefore a picture can be constructed of why outcomes are different, taking into account differences in resources, constraints and attitudes as potential explanatory factors.

3.3 My framework

This section sets out the capabilities-based framework on which the rest of the thesis will be based. It sets out the process by which internal resources and external constraints play a role in determining outcomes, applying the generic process sketched out above to the specific issue of work-family reconciliation. It also explains how the model contains within itself both explanation for continuity and the potential for change, through the alteration of its constituent parts. Finally, it explains how the ensuing empirical work is derived from this framework; the questions that are generated, the answers the theory suggests, and the data that will test this.

3.3.1 The conversion of inputs to functionings

This exposition begins by considering the relevant functionings, as these are specific to the context and determine the relevant inputs and conversion factors. Thereafter the process by which individuals achieve functionings is set out, moving from relative human capital in the household, to the practical and normative conversion factors that prevent these resources from being used to their full potential, and the preferences according to which outcomes are eventually selected.

Functionings

The research focuses on a very specific set of functionings related to the reconciliation of paid work and care responsibilities in families. The valued beings or doings in this

case are the potential solutions that couples can reach in dividing these responsibilities between them and thus discharging their familial obligations. Thus the two key outcome variables are the division of paid work – the proportion of the required paid work time that each partner contributes – and the division of unpaid care – the proportion of the required childcare that each partner contributes. There is no single solution to this optimisation problem, but rather a range of theoretically possible options. It is assumed here that all arrangements that meet a family's needs can be considered valued functionings. However, not all arrangements are necessarily available to couples. Therefore the next step is to consider the preceding steps in the process, and how these may vary within and between cohorts; the relevant resources that couples need in order to achieve these functionings, the things that constrain their conversion of resources into capabilities, and the role of preferences in selecting among functionings in the capability set.

Inputs

The relevant inputs are essentially the human capital resources discussed in the previous chapter, both in absolute and relative terms. The absolute level of household resources is crucial for the size of the capability set; the couples with the most resources can afford functionings that those with less cannot. For example, a couple who both have professional jobs are more likely to be able to buy childcare services, or to be able to survive on a single income, than a couple with manual jobs. Thus the better-off couple has much more choice in their work-care reconciliation options; they are better able to afford the dual full-time/dual-carer option, and better able to afford the single breadwinner option. Meanwhile the worse off couple may not be able to afford either of these options, and may only have the option of a dual earner compromise in order to meet their needs. Thus earning potential is key to the options a couple has, and this is a function of human capital variables such as education and employment experience.

However, the relative level of human capital within the couple is also important in determining what options are available. The household is not a single homogeneous entity, and feminist perspectives (e.g. Folbre 2004) have stressed the importance of not considering it as such. As well as maximisation occurring at the household level, there is an internal situation of co-operative conflict between partners, who each wish to achieve the outcome that is in their own best interests, but vary in their ability to perceive and achieve this outcome. This ability depends on the ownership of resources; the relative earning potential in the household, and the de facto situation of who earns the money. Therefore an adequate understanding of resources needs to include information on the

total human capital resources the household has at its disposal, and the way in which these are distributed between partners.

Finally it is worth mentioning that there is potentially interaction between absolute and relative resources. The extent to which bargaining is required, and thus relative resources come in to play, depends to some extent on the absolute level of resources in the household. For example, there is no need to negotiate over childcare if there is plenty of money to purchase childcare and both partners are happy to do this. Thus scarcity of resources intensifies the need to bargain over them, and therefore the salience of the distribution of resources in the household.

Conversion factors to capability sets

The extent to which resources can be converted into capabilities varies both within, and potentially systematically between, the cohorts. Certain conversion factors may prevent resources from being deployed to their full potential. The previous section considered the importance of the absolute and relative resources in the household for the number of functionings that are theoretically possible. However, they are still only theoretically possible at this stage, as the extent to which resources can be converted into functionings may be subject to a number of restrictions. Thus the question is, for two people with the same level of resources, how does the way in which they can deploy these resources differ, and what are salient differences between them. As with functionings, the relevant conversion factors are specific to the issue at hand. The literature review outlined many such factors around mothers' ability to realise their potential in the labour market and bargain for their interests in the household; factors that they face by virtue of their gender and parenthood status, as well as their own personal situations. What is particularly interesting for this research is how these gender and parenthood related conversion factors vary between the two cohorts; what options might be closed to the older cohort that are open to the younger cohort, or vice versa.

It is conventional to group these factors according to some useful analytical typology, such as the level or source of influence on behaviour. Sen (1985) tentatively suggests a three-way classification of biological, social and other, in an attempt to distinguish between that which is to a great extent prior and unchangeable, and that which is a product of social design. Robeyns (2003; 2005) uses similar headings – biological, social and environmental – which distinguishes between macro-level factors that are pliable and those over which there may be little control. However, her study examines general issues of

inequality rather than that specifically related to work-family reconciliation, and thus many of the conversion factors she mentions are not particularly relevant to the issue here, particularly those relating to environmental factors such as climate. Hobson and Fahlen (2009), in looking specifically at work-family reconciliation, distinguish between macro-level factors that are societal and those that are institutional, in an attempt to capture the different way that social norms act on behaviour compared with institutions such as the labour market and the welfare state.

The distinction I make here is a two-fold one between factors that impose practical restraints on the realm of possibilities, and those that impose normative barriers. A functioning that is theoretically possible for a given level of resources may be practically difficult or impossible; a functioning that is valued but impossible because of some practical obstacle to achieving it. Alternatively, the barrier may be normative; the functioning is valued and practically achievable, but unavailable because it is not normatively acceptable. Within this twofold distinction, there are a range of policy and non-policy factors that influence the extent of practical and normative barriers.

The policy environment plays a key part in raising or lowering practical barriers to work-family reconciliation functionings, through the way that government support to families in reconciling their responsibilities incentivises or discourages certain arrangements. The relevant policies in this situation are those that facilitate some temporary exit from the labour market in order to fulfil care responsibilities, and those that facilitate the combination of working and caring, by assisting with child care and making workplaces more tolerant of care responsibilities with flexible working and anti-discrimination mandates. The way in which these policies have an impact has two dimensions; how much assistance is available, and to what extent is it gendered. If a government does not provide much support to families, then arrangements are likely to follow the gendered status quo, as there is no impetus to change. However, generosity does not necessarily enhance opportunities if it simply incentivises the status quo. Government support to families may be generous but gendered. So for example, a policy package may be very generous to mothers, by providing long and well-compensated leave packages, but this may only be available to mothers and not fathers. Thus, although the assistance helps families to meet their needs by relaxing the requirement for the mother to engage in paid work, it facilitates gendered specialisation. Policy that is both generous and gender neutral facilitates the widest range of possible work-care outcomes for a given level of resources. However, this is of course dependent on the nature of the normative barriers to these options.

Although policies can have a dramatic impact on incentives and disincentives, they are not the only thing that influences the practicalities of different solutions. Policies exist alongside markets and other institutions that shape our way of life. Key among these for the purposes of reconciling work and care are labour markets and the nature of the demand for employment. These influence what a person can expect to earn given their human capital resources, and how these earnings relate to the general cost of living. This is crucial for a couple deciding how many hours of paid work are required to provide a sufficient income. Thus potential earnings are not simply a function of human capital resources, but of the opportunities to deploy that capital, and how much you can expect to earn from it. This in turn depends on the buoyancy and structure of the economy. A stronger economy means that there are more job opportunities and potentially higher rewards, although the down side of this is that costs of living can spiral during good times. The structure of the economy is also relevant because it determines what sectors the jobs are in, and what skills and behaviours carry the greatest reward. The literature review suggested that occupational segregation and the premium to full-time continuous labour force attachment both mean that women are paid less than men with the same level of human capital. Therefore the conversion factor of the labour market impacts men and women differently in their conversion of human capital to labour market reward.

There is of course some potential interaction between policy and the labour market and economy. For example, the difficulties of those with care responsibilities who seek paid employment can be mediated by policies such as anti-discrimination legislation and mandated flexibility. And even at a far more general level, the government has some scope to influence the health and structure of the economy itself, and may choose to do so to varying degrees. Chapter 5 considers the differences between the two cohorts with respect to the economic and policy environment in which they made decisions, and the potential impact of these differences on their outcomes. It also considers the role of the prevailing social and normative climate, which of course sits alongside the more practical considerations outlined here.

Even if an outcome is practically possible – in that it is supported by the prevailing policy arrangements and the economic conditions are such that it allows a satisfactory standard of living – it may not be normatively acceptable. This is not the same as a couple choosing not to take up an option because it does not accord with their normative beliefs about raising children, in fact it is the opposite; it is an option that a couple might choose but feel unable to because it is counter to normative attitudes and behaviour. Although it is difficult to separate these two things analytically, as personal beliefs are inevitably influenced by prevailing attitudes and a desire to conform, what it does is allow room

in this framework for the idea of structure and constraint whilst still allowing for some agency on the part of couples in the choices they make. Section 2.3 of the literature review considered a range of theories about the gendered social and cultural inhibitions on personal choices and behaviours, and it is important to allow for the existence of these barriers to the adoption of counter-normative behaviours.

Policy can also act as a normative as well as a practical conversion factor. The welfare state theories discussed in the previous chapter considered how policy is both based on the existing normative system and potentially reinforces this system. It may be based on an explicit idea of who should earn and who should care, and therefore set out to privilege particular divisions of work and care, which are then taken up because they are attractive but become entrenched as a norm in doing so. On the other hand, there may be no explicit commitment to a particular set of gender roles, but ostensibly gender neutral policies fail to take into account the way that life is gendered, and will thus inevitably operate in a gendered way, and continue to do so because there is no impetus to change. Either way, policy embodies and strengthens a particular set of norms, which can discourage the adoption of any other arrangement. However, if it has the potential to reinforce norms, then it also has the potential to challenge them. This potential source of change is discussed in more detail below.

After all the conversion factors have had their effect, the resulting set of available functionings is the capability set. This is the set of options that are genuinely available to couples, given their level of resources and the conversion factors they face. Which functioning they ultimately choose is down to preferences.

Preferences

The capability approach recognises that people have different conceptions of the 'good life', and respects this heterogeneity in preferences by incorporating a decision stage in the conversion of resources to functionings. Once the available functionings have been delineated by the level of resources and the salient conversion factors, couples are faced with a set of functionings from which they choose according to their preferences.[2]

In the case of work-family reconciliation, this involves a multi-way tradeoff between income, cost, unpaid household work and leisure time, as different work-care options involve different levels of each of these elements. Table 3.2 shows the way that different

[2]This of course assumes that conversion factors have not completely eliminated all but one functioning!

Figure 3.2: The key options in the work-care tradeoff and their implications

Outcome	Household income	Cost of care	Leisure time	Gender equality
Both parents work full-time	Highest	High	Low	Potentially high
Father works full-time, mother works part-time	Medium	Medium	Medium	Medium
Father works full-time, mother stays at home	Low	Low	High	Low

options involve different levels of each element.

The functioning chosen depends on how couples value these different elements. To take an example, if both parents work full-time, this is likely to involve the purchase of childcare (unless sufficient informal care is available) and less leisure time, but it maximises income and has the potential to be the most egalitarian division of labour. Thus parents who value home care of their children more highly than the income or other benefits of paid work are unlikely to choose this option if they do not have to, but others who value paid work and are willing to make the accompanying sacrifices may do so. Therefore couples with the same capability set may choose different outcomes, and the capability approach makes room for this and does not have any particular goal in mind with respect to outcomes.

3.3.2 Circularity, continuity and change

The framework developed here can be used to consider not just the instantaneous link between resources and outcomes, but how outcomes are determined over time, why they endure and how they might be changed. This is important because household decisions are not one-off events, but are constantly re-negotiated over time, and as internal and external circumstances change. The weight of previous outcomes, at both the household and societal level, give impetus to continuity, as functionings in one period feed back into resources in the next. However, changes in conversion factors also open up the possibility of change in household behaviour, and it is in this potential for change that the research is really interested, as it seeks to establish the impact of changes in conversion factors on outcomes.

Continuity results when practical and normative incentives towards certain outcomes do

not change, and in fact become stronger over time. It is easy for household outcomes to become more and more rational the longer they occur. If a mother's human capital was the same as her partner's before she took time out to have children, then a year later her partner's will be higher because he has continued to work during her time out. This makes it rational for her husband to claim primary earner status, and for her to claim primary carer status, particularly if she has done the bulk of the childcare during this time out. Therefore this disparity, whose origin is partly biological but to some extent a product of social norms, gets wider the longer specialisation occurs, making gendered specialisation highly self-perpetuating. A small degree of initial specialisation is difficult to reverse, as the benefits of continuing in specialised roles increase over time. This idea is in fact found in rational time allocation theories of household division of labour. However, perhaps the difference between these and more structural theories is that the former do not recognise the profound implications of these 'rational' decisions for societal norms and understandings of appropriate gendered parenting roles. It is this normative environment that further increases the impetus to continuity in traditional gendered roles, and if nothing happens to challenge this, the situation will reproduce itself.

Change occurs when the capability set is expanded, due to either an increased level of resources, or a change in conversion factors. By increasing the set of possible functionings, the opportunity arises for couples to choose something that has not always been an option. As discussed above, the size of the capability set depends both on resources and conversion factors. Thus at the resources stage, anything that increases mothers' absolute and relative human capital within the household will expand the options available and give them greater ability to negotiate for their most preferred one. At the conversion factors stage, change in non-policy factors such as economic conditions and prevailing attitudes can remove barriers to previously impossible options. An example of this might be a structural change in the economy that makes a lot of previously breadwinning fathers unemployed, but provides better opportunities for women to earn, thus removing the practical obstacles to a female breadwinner household. However, what is arguably more interesting is policy changes, as these are something over which the government has considerable control. An increase in the generosity and gender neutrality of the work-family reconciliation policies available to families can open up new options for couples.

3.3.3 Research direction

Finally, this chapter will outline the direction in which the research will proceed from here. The analysis is organised under two loose headings; continuity and change in the household, and continuity and change in mothers' labour force participation. This section looks more specifically about the questions that the capability approach raises, and the answers it might suggest. It concludes with a brief outline of the empirical strategy.

The first question that will be addressed is that of capabilities in work and care options, and how policy affects this. It will compare two cohorts of couples at an intra-household level, to establish the link between relative resources and outcomes. This is important because, although at an aggregate level women appear to be accumulating more and more human capital, this has not necessarily translated into a stronger relative position in the household. It is this relative position that is so important in securing some choice over the division of work and care. However, it is also important to establish the extent to which this has actually occurred; whether, if there is a difference in relative resources, this has translated into changes in outcomes, through a potential expansion of the capability set.

The second question that will be addressed is that of the potential impact of policy changes on mothers' labour market activity. This will be assessed in two areas; whether they are working more, and whether they are engaged in different types of work. The capability approach means that a distinction is made between changes that have encouraged employment by offering mothers better opportunities, and those that have occurred by making non-employment less attractive or impossible. Both types of influence have the same effect, but they are not both capability enhancing, and are therefore not equally desirable. Furthermore, employment itself is not necessarily a valued functioning, or something that will enhance mothers' capabilities; for example it may be badly paid or dull. Again the emphasis is on the difference between the two cohorts with regard to their capability set, and the extent to which they exercise choice in the labour market.

In order to answer these questions, data will be brought together on the differences between the two cohorts with respect to their resources, preferences, outcomes and conversion factors. The methodology chapter that follows this one will introduce the cohort datasets that contain information on the first three of these items. Thereafter the policy chapter will present the data on the differences in policy and other conversion factors between the two cohorts. The analysis chapters will synthesise this information, and

attempt to demonstrate the differences between the two cohorts with respect to their capability sets in the reconciliation of work and care.

Chapter 4

Methodology and Data

This chapter will set out the empirical strategy that will be employed in the subsequent chapters. It begins with a conceptual outline of the comparative method that will be used, and how this will generate knowledge about the impact of policy on households. It then discusses how this analytical framework will be represented statistically in the analysis, and explains the models that will be used and how their results should be substantively interpreted. It will then introduce and evaluate the data that will be used to test these models.

4.1 Methodology

The main aim of this research is to say something about the impact of work-family reconciliation policy, in a context of narrowing but persistent gender gaps in the workplace and the home. My approach to this is to compare two cohorts of parents who experienced a similar lifecourse stage on different sides of a policy discontinuity. The specific characteristics, strengths and weaknesses of this data will be explored in the second part of this chapter. This first part will outline and evaluate the comparative, quasi-experimental approach, the statistical realisation of this framework, and the narrative avenue that is pursued alongside it.

4.1.1 A comparative, quasi-experimental approach to understanding policy

The empirical strategy employed in this research takes a quasi-experimental approach to understanding policy impact and making causal propositions about the link between policy and household outcomes. In social research, true experiments – the random assignation of participants to a treatment or control group – are held up as a 'gold standard' because the randomisation allows the elimination of rival explanations for any correlations observed (Bryman 2004). If groups are randomly assigned, for example between being exposed to a policy or not, the only possible systematic difference between them is whether or not they have been exposed to this policy, and therefore any difference between them can be attributed to this. However, opportunities to construct this kind of experiment with policy are limited, for practical and ethical reasons. Thus, the 'fall-back position' is a quasi-experimental design that approximates an experimental scenario (Blaikie 2000).

The cross-national analyses of the impact of policy outlined in section 2.4 of Chapter 2 can be thought of as one type of quasi-, or natural, experiment; the exposure of a subset of a population to some exogenous variation (Cameron and Trivedi 2005:54). Citizens of the different countries are exposed to different policy environments, and the research design aims to relate these differences to the outcomes of interest, whilst attempting to replicate randomisation by controlling for other potentially relevant variables. However, this approach has some limitations, primarily related to the difficulty of making cross-cultural comparisons of a phenomenon such as the division of paid work and care, which is itself driven to a large extent by cultural norms as well as more practical policy-driven considerations such as maternity leave and state childcare support.

In light of these considerations, the comparison made here is between two cohorts of British parents at different points in time. The parents are surveyed at approximately the same age; 33 in the case of the older cohort, 34 in the case of the younger cohort. However, the younger cohort had access to a much greater degree of government support in reconciling their work and care responsibilities than the older cohort did at the same age. In the interim period, a new government introduced a range of policies of much greater scope and generosity than their predecessors. Therefore there is one cohort – the younger – that has been 'exposed' to these policies, and another that has in effect not been exposed to these policies, as there was very little of such provision for them at the same age. Thus, a natural experiment can be exploited here. The detailed examination of these different policy eras is the subject of the next chapter.

Despite the elimination of cross-country differences between the two groups, and despite the fact that they are the same age, there may still be systematic differences between them. If two cohorts are studied at the same age, there are two potential, and necessarily conflated, sources of difference between them; one is the 'period effect' – the influence of that particular period in time – and the other is the 'cohort effect' – the influence of being a member of that particular cohort (Glenn 1977). In this analysis, it is the period effect that is of interest, as this contains the impact of the prevailing policy environment, but attempts to understand it are frustrated by the existence of a cohort effect that is difficult to isolate statistically because it cannot be operationalised as a separate variable. There may be systematic differences between the characteristics of the two cohorts, which are themselves related to the outcomes of interest. If these are not controlled for, their influence will be falsely attributed to the effect of policy. The theories outlined above suggested several such relevant differences. For example, human capital theory posits a positive relationship between the amount of education an individual receives and their subsequent labour market value (and thus also their likelihood of participation). However, if mothers in the younger cohort are better educated, then they may have better employment outcomes that have nothing to do with policy designed to facilitate their employment. Therefore these differences need to be controlled for as far as possible, to avoid policy 'taking credit' for change that it is not responsible for, although this can never be perfectly achieved in practice.

Even if comparability can be achieved between the two cohorts, questions remain about the extent to which a comparison of two snapshots can be anything other than a description of two points in time. The two cohorts are themselves two populations – everyone born in two particular weeks – and formally, no statistical inference can be made beyond these two populations. The extent to which the findings can be intuitively generalised beyond these two weeks depends on an assumption that individuals born around the same time are similar. This may be a safe enough assumption for those born in the neighbouring weeks, but it is not clear how far this can be extended. Furthermore, it is something of a leap of faith to use just two data points to draw conclusions about what happened in the intervening period, or to extrapolate beyond this period. However, the deductive nature of the research means that its conclusions are not driven by the data and its potential idiosyncrasies. This research begins with a theoretical account of the changes that should have occurred in the division of paid work and care, given existing theories about its determinants and the way in which policy has developed, and then establishes whether the differences between the cohorts are consistent with this account.

4.1.2 The statistical approach

To ensure that differences are capturing policy effects and not differences in individual characteristics, the latter need to be controlled for statistically. This will be accomplished in this research using multiple regression models, which show the impact of the main variable of interest – cohort membership – holding constant the other potentially important differences between the cohorts, whilst also providing some additional interesting information about the impact of these other factors on the outcomes of interest.

The only continuous dependent variable in the analysis is wage, which is investigated in Chapter 8 in relation to the wage penalties experienced by mothers in the labour market. Most of the outcomes with which this research is concerned are modelled as binary variables; they are discrete states such as whether a mother is in work or not, and whether she works full-time or part-time. The rationale for the selection of categorical dependent variables is partly data-driven; some variables, such as the division of childcare and partner's work hours, are categorical in the datasets. However, for those that are not, categorical operationalisation means that the analysis captures qualitative differences between types of household arrangement or labour market participation, and tries to identify the factors that lead mothers down certain typical paths. The disadvantage of this approach is that it does not capture the nuances in things like part-time work, which can vary between almost full-time and very short hours, with different implications for the balance of work and care in the household. The rationale for dependent variable selection will be elaborated in the analytical chapters themselves, as the statistical models are being presented.

Model form, evaluation and interpretation

For modelling wage, a linear, ordinary least squares (OLS) regression model is employed to estimate the effect of the independent variables on the dependent. This type of model is so ubiquitous, and its usage so rare in this analysis, its specification will not be covered in great detail here. To summarise, the model takes the form:

$$y = \alpha + \beta_1 x_1 + \ldots + \beta_n x_n + \epsilon$$

where

y	is the dependent variable
$x_1 \dots x_n$	is a vector of covariates
$\beta_1 \dots \beta_n$	are the corresponding coefficients
α	is the model intercept
ϵ	is the error term

The coefficient on an independent variable represents the amount of change in the dependent variable resulting from a unit change in that independent variable, holding all other independent variables constant.

If a dependent variable is binary, as most of them are in this analysis, the most appropriate type of regression model is a logistic regression model. There are several reasons why an OLS model is not appropriate for binary variables (Pampel 2000). Firstly, it will result in predicted values that cannot logically occur, because they are more than 1 or less than zero. Secondly, the marginal effect of the independent variables will not be linear across their whole distribution; their impact will be greatest around the middle of the relationship, and smaller towards the extremes, forming an S-shaped curve rather than a straight line. Thirdly, the effects of the independent variables are not additive, as the impact of one will depend on the level of the others. These problems are overcome by transforming the dependent variable into logged odds, or the logit:

$$logit(p) = ln\frac{p}{1-p} = \alpha + \beta_1 x_1 + \ldots + \beta_n x_n$$

where

p	is the predicted probability of the dependent variable taking the value 1
α	represents the baseline odds of the outcome when all other covariates are zero
$x_1 \dots x_n$	is a vector of covariates
$\beta_1 \dots \beta_n$	are the corresponding coefficients

Taking the odds rather than the probability eliminates the floor of zero, while taking the natural log of these odds eliminates the ceiling of 1. The resulting relationship between the logit and the independent variables is now linear, and the coefficients on the independent variables represent their additive effect on the dependent.

When interpreting the coefficients obtained from this type of model, they are usually first of all exponentiated, in order to give their impact on the odds, rather than the logged odds, as the former gives a more intuitive understanding of their effect. Once exponentiated, the coefficients represent the multiplicative effect of the variable on the

odds of the outcome; for example, a coefficient of 1.3 indicates that a one unit increase in the independent variable increases the odds of the dependent variable taking the value 1 by 1.3 times. An alternative way to express this is as a percentage change in the odds, calculated in this way:

$$\%\Delta = (e^b - 1) * 100 = (1.3 - 1) * 100 = .3 * 100 = 30\%$$

In other words, a coefficient of 1.3 means that a one unit increase in the variable increases the odds of the dependent variable taking the value 1 by 30%. Any coefficient higher than 1 represents an increase, while coefficients less than 1 represent a decrease in the odds. Thus, if the obtained coefficient were 0.8, the percentage decrease would be:

$$\%\Delta = (1 - e^b) * 100 = (1 - 0.8) * 100 = .2 * 100 = 20\%$$

Therefore, a coefficient of 0.8 means that a one unit increase in the variable decreases the odds by 20%.

In the models estimated here, the most important independent variable is the one representing whether the individual belongs to the older cohort or the younger cohort. This variable indicates the impact of cohort membership on the odds of key employment outcomes such as whether a mother is in employment. This effect encapsulates the impact of policy on maternal employment, alongside other environmental influences, plus any individual-level differences between the two cohorts that have not been controlled for in the model. These individual-level differences are controlled for as far as possible by including a range of other theoretically important influences on maternal employment. Although the primary function of these variables is to act as controls, the coefficients on them can also say something interesting about the theoretical perspectives that prompted their inclusion. For example, the human capital perspective suggests the importance of controlling for education; the coefficient on this variable will indicate the impact that education has on maternal employment.

There are a number of ways to judge the statistical significance of the results, both of the overall model and the individual coefficients themselves. Measures of model fit indicate how well the statistical model, and therefore the underlying theoretical framework informing its specification, explains the patterns observed in the data. The starting point in evaluating this is the log-likelihood value, which "reflects the likelihood that the data would be observed given the parameter estimates." (Pampel 2000:45). It is expressed as a negative number; the further it is from zero, the less likely and therefore the worse the model. However, its absolute value is not particularly meaningful; it is most meaning-

fully interpreted when the log-likelihood value from the model is compared with that of an intercept-only model. A chi square test determines whether the difference between these two values is statistically significant; if it is, the null hypothesis that the coefficients are all zero can be rejected (Menard 1995:21). This is roughly analogous to the F test in an ordinary least squares regression, albeit calculated in a different way. A crude analogue to the the R-squared statistic in OLS regression can also be constructed, although it does not represent the proportion of variance explained and cannot be interpreted in this way. In logistic regression, this 'pseudo' R-squared represents the proportional reduction in log-likelihood than can be attributed to the independent variables. Thus it ranges from zero, which would suggest that the model has no predictive power, to 1 if the model perfectly predicts the dependent variable (Menard 1995:22), and therefore provides some indication of the quality of the model within a clear scale.

There are two ways to establish the significance of the individual coefficients within the model. One is to conduct a log-likelihood test of the kind outlined above for each variable, to see whether its inclusion creates a statistically significant difference in log-likelihoods. A much quicker but less reliable method is to use a Wald test, which evaluates significance on the basis of the size of a coefficient relative to its standard error (Pampel 2000:30). However, because standard errors for large coefficients may be very large, this is likely to result in some 'false negatives'; i.e. the acceptance of the null when it is in fact false (Menard 1995:39). In this analysis, where the significance of the coefficient is of central importance – for example in judging whether the impact of cohort membership is significant or not – a likelihood ratio test will be used. However, as it would be extremely long-winded and time consuming to do this for every variable, Wald tests are used where the significance of variables is not of central importance, as their inclusion is primarily for control purposes.

Evaluating these models

The statistical models used here have two main weaknesses. The first is that they are not the most effective type of model at controlling for individual heterogeneity. This is potentially quite an important issue in this case, as there are many unobservable, individual-level differences that are likely to make a difference to employment outcomes; intangible factors, such as orientations to work and family, and innate abilities and talents. A fixed-effects model could control for this by taking observations from the same person over time, and including a person-specific dummy to capture these intrinsic differences between individuals. Some studies have done this, using panel data with outcomes

recorded over a number of years (e.g. Budig and England 2001; Avellar and Smock 2003). However, the logic of the empirical analysis being undertaken here is that the outcomes are not observed over time, but at specific points in time, chosen because they correspond to particular policy environments. Thus, the datasets cannot be reduced to 'person-years' as fixed-effects techniques require.

The second problem with straightforward logistic regression models is that they only go part of the way to addressing the potential endogeneity and selection bias that interferes with attempts to understand the true difference between the two cohorts. In this research problem, there is potential selection into motherhood that may bias estimates of the effect of motherhood. The analysis compares mothers with non-mothers, and employed mothers with stay at home mothers. However, these groups are not randomly selected; certain factors make selection into motherhood more or less likely, and these things are in addition likely to be associated with the very employment outcomes under consideration. For example, women who become mothers may be less employment orientated than those who do not, and would perhaps have been in lower status jobs even if they had not had children. Therefore, to attribute the entirety of any status gap to motherhood would be to overstate the impact of motherhood. However, typical statistical procedures to correct for selection bias are difficult to implement. For example it is not clear what the 'instrument' might be in a Heckman selection model (Heckman 1979); it seems unlikely that anything correlated with the explanatory variables will be uncorrelated with employment outcomes.

A related issue is around the direction of causality that is assumed in the models used here, which designate at the outset a dependent variable and a set of explanatory variables. Although maternal employment outcomes are taken here as the outcomes of interest, there may well be a degree of simultaneity or even reverse causality in their determination with other family formation and division of labour decisions. The analysis here does not untangle this issue of temporal ordering, or attempt to model outcomes as simultaneous; this is perhaps something that would merit further investigation.

4.1.3 Using narrative

In addition to the statistical models presented above, the analysis attempts to take the novel additional step of using the data in a more qualitative way, by constructing life histories from individual cases. These stories are used to illustrate the linkages between the concepts that the theoretical framework has proposed, and to help understand the

impact of policy on individual families and how this depends on their particular circumstances. Although the results of this analysis come from the statistical models, the cases are central to the development of the theoretical framework, the selection of variables in the statistical models, and the interpretation of the results obtained.

Rationale

The idea of focussing in on individual cases in large datasets was pioneered by Singer et al (1998), who used a large quantitative dataset to construct life histories about selected respondents within it. They wanted to see whether individuals in different mental health types experienced commonalities in their paths through life and the major events within it, and whether the types could be statistically distinguished on this basis. The analysis here does not go as far as this final step, but it does involve selecting mothers in different types of families and seeing whether they experience common sets of factors that lead them towards their position at the time at which they were sampled. A similar approach is taken by Bynner et al (1997) who, having identified links between economic outcomes and other lifecourse events at the aggregate level, use individual 'portraits' from the dataset to illustrate how these paths through life operate in practice. Bynner et al (1997) use the same cohort study data that is used in this research. These datasets are particularly conducive to this type of analysis, as they allow the researcher to tell a very detailed story about individuals' life trajectories, including the order in which the events occurred and their location within a specific historical context (Elliott 2008).

Three elements of Singer et al's (1998) rationale for case-level analysis seemed particularly potentially fruitful, and relevant to the issue at hand here. The first was the ability to see the bigger picture; by taking the case as the level of analysis, lives can be examined as a whole, potentially in great detail. This is relevant to mothers' employment outcomes, which are influenced by a range of past and present, interacting, factors. Secondly, case-level analysis illuminates linkages between concepts at the individual level, not just the aggregate, to show that the linkages identified in quantitative analysis are relevant to people's experiences. Thirdly, they allow the researcher to move away, even temporarily, from a story about the world that emphasises the average, and constructs individual variation as fluctuation around the norm.

The case analysis operates as a sideline to the main empirical work, which is constituted by the statistical models outlined above. Ultimately, the aim of the research is to draw broad, generalisable conclusions about the impact of policy on mothers as a whole.

However, the aim of using the case studies is to illustrate this impact in a more intuitive way than reporting the relevant odds ratio, and to consider the heterogeneity of this impact that the regression model cannot capture. The cases are used a priori to aid the formation of hypotheses about potential policy effects (Chapters 6 to 8), and post hoc to interpret the results and suggest the impact of any future change (Chapter 9). They are used as a testing ground for the way that the theoretical framework in Chapter 3 conceptualises individual behaviour and the way it responds to policy. Indeed, this longitudinal, individual-level analysis gets closer to identifying the capability set itself than the quantitative analysis can.

Another option, rather than using real cases, might have been to invent some typical cases, as Joshi et al (1996) do. However, the aim of using case studies was precisely to show idiosyncrasy rather than iron it out. It is these exceptions that make the life histories interesting; the mother in a male dominated field, a higher earning mother who adopts a homemaker role, or the different impact of the first and second children. Understanding the exceptions as well as the rules is part of the value that case analysis adds to the overall analysis; that the cases ultimately still related well to the overall theoretical framework squared this circle in a satisfying way.

Taking a more qualitative approach to a quantitative data augments the basic quantitative paradigm in some ways. Quantitative research typically seeks explanations of phenomena that are incomplete but widely generalisable. Analysing cases at the individual level allows room for telling a story of a complexity that a statistical model cannot possibly capture. It brings an idiographic element to research that is primarily nomothetic, whilst still ultimately providing these generalisable answers to the research questions. However, the nature of the construction of the stories means that the underlying research paradigm is not really challenged. The fact that the instrument of data collection remains the same means that the underlying approach of the objective measurement of pre-selected concepts to test theoretically-derived hypotheses remains unchanged. The stories constructed from the data can never be true narratives because the researcher decides what information is important and what it means, rather than the respondent themselves. A chain of events exists on paper, but lacks the evaluation or summing up that might be expected from a narrative (Elliott 2005).

The cases

Case selection in this analysis was partly driven by a few key variables, and within this at random. Like the other studies mentioned here, case selection begins with the identification of theoretically important 'types', within which cases are chosen. In this case, most couples fall into one of three earning types: both full-time; father full-time and mother part-time; and father full-time, mother at home. Thus, mothers were selected who were either in full-time employment, in part-time employment, or stay at home mothers, and who had a partner who worked full-time.

Cases are also chosen on the basis that they are average with respect to the household's income and family size, in order to make them broadly comparable, on the basis that families that are particularly large, rich or poor will have a different set of requirements and constraints to the average family. The other requirement in the case studies is that they have a good, complete set of data from throughout the lifecourse, in order to tell the detailed stories that are the aim of the exercise. Within these criteria, cases were chosen at random. Figure 4.1 gives a brief biography of each of the cases chosen. Psuedonyms have been assigned to each case in order to more easily refer to them during the discussion in the ensuing chapters.

4.2 Data

The second part of this chapter looks at the data that will be used in the statistical models, and from which the case studies will be selected. It begins with a brief summary of some key facts and figures, before establishing the relevance of the cohorts to the policy eras of interest, and the suitability of the variables for the research questions and theoretical framework proposed. It will outline the relevant content in the datasets under the main themes identified in the previous chapter as theoretically important, considering the strengths and weaknesses of the data available. It will also explain the manipulations that have been carried out on the basic data to produce any author-derived variables that will be used in the models. This evaluation and transparency is important in order to demonstrate that the variables constitute valid indicators of the theoretical concepts, which can then be used in models, whose results in turn say something about those underlying concepts.

Figure 4.1: Case studies used in the analysis

Mother's employment status	NCDS	BCS
Full-time employment	**Sandy** lives in the North-West of England with her husband and two children, aged 5 and 3. She works full-time as a radio operator, a job she has held for the last 13 years. Despite not liking school and truanting occasionally, she had hoped to go on to further education, but she left education at 17 with O-levels. Her husband is a full-time labourer, earning slightly more than she does; net household income is £430 per week, split 53:46. **Angela** lives in Yorkshire with her husband and two children, aged 5 and 2. She has been in full-time clerical work since leaving school, and is currently a counter clerk. She had aspired to further study and a professional job whilst at school, but left education at 17 with O-levels. Her husband is a full-time production manager, earning slightly more than her; net household income is £415 per week, split 55:45.	**Lisa** lives in Yorkshire with her partner and two children, aged 6 and 2. She is not married, but she has lived with her partner for nine years. Around the time she moved in with her partner, she also gained her nursing diploma, and has worked full-time as a nurse since then, accruing some managerial responsibilities in her most recent post. Her partner is a full-time chef, and they are on similar earnings; net household income is £473, split 52:47. **Nicola** lives in the North-West with her husband and two children, aged 6 and 3. She has worked full-time as a financial clerk since leaving school at 16 with O-levels. Her husband is a full-time electrician, and earns less than she does; household income is £503, split 57:42.
Part-time employment	**Carol** lives in the East Midlands with her husband and two children, aged 6 and 3. She currently works 19 hours per week as a sales assistant. She left employment shortly before having her first child aged 27, returned for 18 months when this child was two years old, before leaving employment again, and returning when her second was seven months. Her husband is a full-time craftsman, who earns considerably more than she does; net household income is £327 per week, split 85:15.	**Karen** lives in the South-East of England with her husband and two children, aged 5 and 1. She has held various clerical roles since leaving school at 16 after her O-levels, going part-time since the birth of her first child but never quitting altogether. She is currently a financial manager. Her husband is a sales assistant, earning the majority of the family income; household income is £478, split 80:20.

(figure 4.1 contd.)

	Susan lives in the South East with her husband and two children, aged 5 and 3. Although she worked as a nurse before her children were born, she has not returned to nursing since, and is currently a part-time travel attendant, a job she has held since her youngest child was 15 months old. Her husband is a full-time metalworker, earning considerably more than she does; net household income is £304, split 76:24.	Margaret lives in the North-West with her husband and two children, aged 6 and 2. She has been a medical secretary for most of the time since she left school at 16. She took a year out of the labour market when her first child was born, returning part-time, and did not leave after her second. Her husband is a full time metalworker; household income is £371, and she contributes around a third of this.
Stay at home mother	**Janet** lives in London with her husband and two children, aged 5 and 3. She is currently a stay at home mother. She had worked full time as a counter clerk until the birth of her first child, aged 27, but has not worked since. Although her parents had hoped she would go on to further education, she expressed no desire to continue education beyond 16 or have a professional job, and left school at 16 with O-levels. Her husband is a full-time production manager with considerable managerial responsibilities, with a net income of £323. **Kathy** lives in the South East with her two children, aged 8 and 3. She is currently a stay at home mother. She had worked full-time in a clerical job before her first child was born, aged 25, at which point she left employment. She returned briefly to a factory job when her first child was two, but left after a few months, although she did not have her next child for another three years. Her husband is a full-time railway worker, with a net income of £325.	**Mandy** lives in the South-West with her husband and two children, aged 5 and 2. She is currently a stay at home mother. She had worked full-time as a sales assistant after leaving school at 16, but left just after the birth of her first child and has not returned to paid work. Her husband is a full-time metalworker, with a net income of £364 per week. **Sam** lives in the South-West with her husband and two children, aged 5 and 3. She is currently a stay at home mother, having left full-time employment as an electrical tester when her first child was born. Although her parents had hoped she would continue to further education, she aspired to leave at 16, and did so. Her husband is a full-time software engineer, with a net income of £412.

4.2.1 The British Birth Cohort Studies: vital statistics

The empirical analysis undertaken here is based on the data from two surveys, one of which has followed a cohort of respondents born in 1958, and another that has followed a cohort born in 1970. The National Child Development Study initially surveyed all babies born in a particular week in 1958, and this group has been surveyed eight times since then. The British Cohort Study surveyed all babies born in a particular week in 1970, and this group has been surveyed seven times since then. Data was initially collected principally from the cohort member's main carer, along with additional information from medical or educational professionals. Since the cohort members became adults, the data has primarily been collected through interviews with the respondents, either by telephone or in person.

In talking about the data and the resulting analysis, several terms are used interchangeably to differentiate and draw comparisons between the two cohorts. The respondents from the 1958 National Child Development Survey are referred to as the older cohort, or the NCDS respondents, or are referred to by their birth year or the year in which they were sampled (1991). Similarly, the 1970 British Cohort Study are referred to as the younger cohort, the BCS respondents, and the respondents born in 1970 and sampled in 2004.

Both surveys began with a target sample of around 17000 children. Inevitably there has been some dropout over the years; table A.1 shows the sample sizes at each sweep for both surveys. However, the sample sizes remain quite large; what is most relevant to the results is the nature of the data that is missing, as this is where bias can be introduced into estimates. The issue is not simply with unit non-response – those who drop out of the survey altogether – but also item non-response within surveys. With multiple regression analysis, missing data for a single variable within a case will result in the elimination of that entire case if standard casewise deletion is used, as it is here.

The impact that this has on the model estimates depends on the extent to which this non-response is correlated with other things. Data is said to be 'missing completely at random' (MCAR) if missing values are distributed randomly through the data matrix; this is highly unlikely in a social survey. As far as the datasets used in this analysis are concerned, the data is not MCAR. Hawkes and Plewis (2006) find that drop-out in the NCDS is systematically associated with being male, less educated, in less stable employment and more disadvantaged. No similar analysis exists for the BCS, but the situation is plausibly the same.

Data 'missing at random' (MAR) can be correlated with other variables, but not with the score on the variable itself: "The missing data for a variable are MAR if the likelihood of missing data on the variable is not related to the participant's score on the variable, *after controlling for other variables in the study*." (Acock 2005:1014). Thus, for example, a missing value on a respondent's educational level might be correlated with their sex, but within each sex this missingness is not correlated with the respondent's level of education itself. If the data is missing in this way, and missing cases are simply dropped, then coefficient estimates will be biased – they will not reflect true population parameters, as the analytical sample will be systematically different from this population. Multiple imputation methods can be used to correct for this if the data really is MAR, however their complexity meant that they are not attempted in this analysis; this is an avenue for future work to test the strength of the conclusions stated here.

Data may not be MAR in reality; to follow on with the above example, those with less education might be less likely to answer a question about their educational attainment. Thus the non-response is correlated with the level of the variable and the data are not MAR. This is impossible to prove either way with observational data, as the true value of the variable is by definition unknown if it is not recorded. The researcher can only go on assumptions about the nature of the missingness mechanism and try to correct for it.

4.2.2 Variables

The content of the datasets is highly relevant to the substantive area of the research. The data collected is general purpose social survey data on a range of aspects, but it is specific enough to contain a range of relevant variables. It will become clear from the ensuing discussion that the datasets were not perfect, and lacked some useful variables for the best possible hypothesis testing. However, this disadvantage is outweighed by the advantages of what is there; a vast resource, much larger than anything that could possibly be collected within the scope of this research, which is a good match with the required variables.

Dale et al (1988) caution that prior to embarking on secondary analysis, the researcher needs to consider the rationale for the collection of the intended data, and the underlying theoretical framework and substantive priorities that informed its genesis. Data may have been intended to research a particular subject or explore a particular hypothesis, and its transferability to other research questions may be limited if this is the case. Both of the datasets used here began life as surveys designed to investigate the causes

of perinatal mortality, and their early focus is on health issues and outcomes. Therefore, the earlier sweeps of the studies, especially the NCDS, have a huge amount of detail on health that is irrelevant to the analysis here, and a lack of socioeconomic information about the households into which the children were born. However, the more general, sociological rationale was present from the start, and the amount of data collected on these types of variables increased over the life of the survey. In addition to their use as tools to investigate perinatal mortality, they were intended to be used more generally "to study the educational, behavioural, emotional, social, and physical development of a large and representative group of British children" (Shepherd 1995:3). They have developed into studies that allow the investigation of all these aspects well into the respondents' adults lives.

Perhaps the most robust indicator for the suitability of the data for the research questions under consideration here is the considerable amount of similar work that the datasets have facilitated. There are several studies using the cohort studies to examine issues of gender wage and employment gaps (Dex et al 2008; Joshi et al 1996) and the penalty to motherhood (Waldfogel 1995; Elliott et al 2001), and comparing the two cohorts in this respect (Makepeace et al 2004; Joshi et al 2007). Most of these studies are, as this one is, predominantly interested in the cohort members' early thirties and the period leading up to this, and make use of the rich employment history data to understand mothers' trajectories. These employment variables are the outcomes of interest in this research. Furthermore, the information available on the respondents' partners makes it possible to say something about gender gaps at the intra-household level as well as aggregate level gaps.

Information on outcomes

This research examines a number of outcomes – employment, wage and the division of household work – over the course of the analysis. Although the datasets contain all of this information, there are two issues with the available data that need to be considered. One is the rather inelegant way in which the information about household division of labour is necessarily expressed given the limitations of the variables. The other is the amount of missing data on the wage variable, and the complexity of trying to correct for this.

Although the datasets contain some information about the employment of the respondent's partner, the cohort member is not asked exactly how many hours per week their

partner works. Therefore, although the data can say, for example, whether a household is a dual-full-time couple, or a male breadwinner couple, it cannot be any more specific than this. It cannot distinguish between a couple who both work 35 hours per week, and another in which the mother works 30 hours per week and the father works 50. Both of these would be classified as dual-full-time, despite the conceptual differences between them; the former arrangement suggests some commitment to egalitarianism, the latter to a more specialised division of labour.

The information on the division of household tasks suffers from a similar imprecision, as it covers only a finite number of tasks and is measured only in four categories. The questions ask who performs the majority of a particular task, and the possible responses are 'the cohort member', 'their partner', 'shared equally' or 'someone else'. This does not allow for any distinction between a situation in which one partner does marginally more, and one in which one partner does everything. Furthermore, due to the relatively limited number of questions (3 childcare questions and 6 non-childcare questions) no comprehensive overview of task sharing is possible, although the questions that are asked cover what would appear to be the vast majority of household tasks.

Both of these issues have implications for measurement validity. They force the analyst to draw an arbitrary distinction between couples who are potentially quite similar, and conversely to group together couples who are not, thus exaggerating difference and underplaying variety. There therefore is a limit to which the available detail makes it possible to map the data onto the complex theoretical framework on which the analysis is based.

The lack of data on partner's hours means that there is no way of making an intra-household comparison of hourly wage, which removes a potentially interesting avenue of enquiry. In this analysis, hourly wage is examined at the aggregate level, comparing mothers with fathers and childless men and women. It is also used in models of division of household labour as an indicator of household resources and the relative financial contribution made by each partner. There is a considerable amount of data missing on wage; it is missing by definition for those not employed, but even among those known to be in full-time or part-time employment the wage data is missing in 17% of cases. Rather than lose all of these cases, a simple imputation procedure is used here to estimate the wage for those without any data. Following the approach of Joshi et al (1996), existing wage data is regressed against a set of key explanatory variables, and the resulting coefficients used to predict wage where the wage is absent but the explanatories are not. Where possible, a variable indicating the amount of full-time

employment experience was included as a predictor, but as not all cases included this information, another regression was run without it to give coefficients for these cases. In this analysis, real wage data is used where present, and an imputed value is used where it is not. The resulting partially imputed variable has a mean very similar to the real wage variable; £4.84, compared with £4.95 for those with data present. Almost all cases contain some wage data in the imputed variable.[1]

The problem with this approach is that it gives a false impression of statistical power. The number of cases with data has been increased, but any model will treat the variable as if this data has been collected from the respondent, and thus overestimate its precision and underestimate its standard error. Rather than a single imputation procedure, multiple imputation should be used to correct for this (Acock 2005:1019), however as mentioned above this is not something that has been attempted here due to its complexity. These potentially underestimated standard errors mean that the significance of the coefficients on these wage variables needs to be viewed with some caution, as there may well be some false positives. However, this method does reduce the need for casewise deletion, and the bias in coefficient estimates associated with this.

Outcomes are only one side of the regression model; the datasets also contain considerable amounts of information on the side of the independent variables. Chapter 3 outlined the three main 'right hand side' elements; inputs, conversion factors and preferences. In this analysis, conversion factors are represented by cohort membership; each era represents a particular set of conditions under which families are balancing work and care, and which will make it easier or harder for them to do so. Inputs are operationalised as the indicators of the relative and total household human capital and resources, while preferences are operationalised by attitudinal variables. The next two sections discuss inputs and preferences in turn.

Information on inputs

The theoretical framework conceptualises the relevant inputs as the resources that give a couple options around the division of work and care, with more resources assumed to enhance capabilities. The analysis makes use of the data on the cohort member's potential and actual earning power, and that of their partner, in order to represent the size of this set of options. This information on relative resources also says something about

[1]Some senstivity analysis, in order to establish the potential bias of using these imputed variables, is not attempted here but would be an important step in any future analysis.

the relative bargaining power within the household, and the ability of each partner to bargain for their preferred outcome. These ideas are operationalised using variables representing the human capital factors that endow earning power, and the de facto absolute and relative situation with regard to job status and remuneration.

The datasets contain extensive information on the 'schooling, experience and earnings' with which human capital perspectives are concerned, for the cohort member at least if not their partner. Their educational attainments are recorded from the earliest age, and there is potential to go into great depth about the subjects they studied and the grades they received in each. This is somewhat beyond the scope of this analysis, which focusses only on the length of time that the cohort member was in school, and the highest qualification they obtained. For partners, the only such information is the age at which they left full-time education, which can only be assumed to proxy their eventual qualifications gained. The analysis also makes use of the information on the cumulative experience of the cohort members, as it can be used to determine the length of time since the age of 16 that they have spent in various economic states. Thus, full-time employment has the highest potential return, whilst periods of part-time employment, unemployment or family care may have a negative impact. However, this data is complete on the month-by-month level for just over half of the respondents, due to non-response at previous sweeps, missing spells, or spells of an indeterminate type. Therefore it is not used as a variable in itself, but in the calculation of the wage variable, as detailed above.

Some retrospective data on employment history is available for NCDS partners, but there is no employment experience information available for partners in the BCS, so this dimension cannot be added to the analysis. Data on partner's employment history could potentially be constructed using information from previous sweeps, but a complete history would require them to have spent their entire adulthood with the cohort member, which is unlikely. Therefore, only contemporaneous information about partners' employment is included. Much of the contemporaneous information about the cohort member's job is available for their partner; the exceptions are hours worked and sector of employment. As far as education is concerned, the data also lacks detailed indicators of partner's attainment; the only information is an indication, in age bands, of when they left full-time education. This does not imply that they achieved a particular qualification, and does not incorporate any vocational training and qualification, which may be highly relevant to their current labour market position. Given this lack of employment history and education data, key aspects of human capital, there is only a limited extent to which the analysis can encapsulate partner's human capital.

Several key features of the respondent's job, and that of their partner, are also included in the analysis. The first is a measure of job status; where the respondent's job is in the labour market hierarchy. Although jobs in the highest category are not always the most highly rewarded financially, there is on average a pay gradient across the classification, and the status classification captures an element of skill, responsibility and commitment that is perhaps hard to otherwise capture. The variable used in this analysis is the National Statistics Socio-Economic Classification (NS-SEC). Although other measures are available in the datasets, such as the Registrar General's Social Class (SC), and Socio-Economic Group (SEG), these measures have all been superseded in official publications by the NS-SEC since 2001. The rationale for doing so was to replace these old measures not only with something more modern (SC has its roots in the nineteenth century), but also with a more rigorous conceptual basis that drew on advances in thinking about class and occupational hierarchy (Rose and O'Reilly 1998). NS-SEC brings in information about the basis on which the individual is employed, in order to understand their position in the power structures of the labour market, alongside considerations of sector and size of occupation. The variable is available in the BCS dataset, and was created manually for this analysis for the NCDS, using lookup tables available from the Office for National Statistics.[2]

In addition to status, which captures level of responsibility to some extent, a specific indicator of managerial responsibilities is also included. Both surveys ask about managerial or supervisory responsibilities for both the respondent and their partner. However, this variable needs to be interpreted with caution because, unlike most of the variables used here which are asked in almost identical fashion, the question on managerial responsibilities is not the same in the two surveys (see box below). The response categories are not the same, although both could be recoded into a binary variable. However, the BCS question seems to be more specific about the kind of activity about which it is seeking information. It is perhaps for this reason that the data suggests greater managerial responsibility in the older cohort; this is contrary to contemporaneous Labour Force Survey data, which suggests that 34 year olds in 2004 were more likely to have such responsibilities than 33 year olds in 1991. This problem illustrates the difficulty in comparing two cohorts twelve years apart; there will inevitably be some differences in the way some concepts are measured, due to the progress of thinking in survey methodology, or the competing priorities of those who fund and administer the surveys at different points in time. Fortunately in the case of these datasets, question wording does not often differ in this way.

[2] Available at http://www.ons.gov.uk/ons/guide-method/classifications/archived-standard-classifications/ns-sec/how-to-derive-the-ns-sec/derivation-tables/index.html.

Questions on managerial responsibility
NCDS: “Do you supervise other people’s work?", "If yes, how many?”
BCS: “Do you have any managerial duties, or are you supervising any other employees (*Manager/foreman or supervisor/not manager or supervisor*)?"

A final relevant input is the contribution of nonwage income to the household finances, and how this is split between partners, which affects the total and relative resource distribution in the household respectively. This information is available to some extent in the datasets. Respondents are asked about sources of state benefit and other income, and whether this accrues solely to them, to their partner or to both. In the variables used in this analysis, the respondent is allocated the total amount if it is paid only to them, and half the amount if it is shared, and similarly for their partner. Thus it is assumed that shared money is equally split; even if this is not a realistic assumption, there is no information in the datasets on which to base any other distribution. In addition to regular sources of nonwage income, data is also collected on savings and investments, but there is no indication in the BCS data which partner these belong to, so this information is not included.

As the analysis draws on information about both the cohort member and their partner, it is worth considering the implications of treating both types of information as equivalent for analytical purposes, when in fact they are not. Cohort members give the information on themselves and on their partners, who may not even be present at the time of the interview. Correct partner information relies on the cohort member knowing and remembering exactly what their partner does, their sources of wage and nonwage income, and so forth. It is plausible therefore that this information will be less accurate than the information on the cohort members themselves, and therefore there is some threat to validity. However, the answers about partners are broadly in line with those collected about cohort members themselves, suggesting that there is little systematic error. For example, weekly pay among cohabiting male cohort members is £290.71, while for male partners of cohabiting female cohort members it is £285.27.

Information on preferences

The theoretical framework stresses the importance of preferences as well as opportunities in understanding final outcomes. The datasets contain some indications of respondents’ attitudes towards work-family issues. A variety of attitudinal questions are asked, mostly in the format of a self-completion questionnaire administered after the main in-

terview. In order to turn this large number of variables into a manageable representation of attitudes, factor analysis was used to identify the main groups of variables. Some of these groups have little obvious relevance to work-family issues and were omitted, such as a number of variables on attitudes towards people of different races. The three relevant groups were: one group on general attitudes to family morality (example: "it is alright to have children without being married); another on attitudes towards working motherhood (example: "pre-school children suffer if their mother works"); and a third on personal orientations towards employment (example: "having any job is better than being unemployed"). Rather than include all the variables individually, which would cause severe multicollinearity, a single variable was created for each group, weighting the constituent variables by the factor loading scores obtained in the factor analysis.

There are three main issues to consider with the attitudinal data. The first is that the views solicited are in the abstract, and are not necessarily the same as what a person feels is right for their own household. For example, someone may feel it is perfectly fine for mothers with young children to work, but prefer not to do so themselves. If this discrepancy is widespread, then the attitudinal data here will not necessarily be a useful explanatory variable for household outcomes. The second issue is that the attitudinal variables do not all come from the sweep taken at age 33 or 34; some relevant questions were not asked here, and have had to be taken from earlier or subsequent sweeps. Although this allows for the inclusion of such variables, the validity of this action relies on the assumption that attitudes do not vary over time. This may not be the case, as people's perspectives may adapt in response to new family formation events. Thirdly, the datasets do not contain information on the attitudes of the cohort member's partner. Therefore, they can only partially illuminate the path from capabilities to outcomes, as the decision-making process is conceptualised as a complex bargaining problem with competing interests, but this cannot be operationalised here.

4.3 Ethics

There are few ethical issues involved in the analysis of secondary data, as far as impact on respondents is concerned. The data used in this analysis has been collected with the informed consent of the participants, and ethical considerations surrounding appropriate content have been made before the collection stage. Analysing the resulting data does not further impact the respondents, especially as the size of the dataset and its anonymisation makes it impossible for the analyst to identify any particular case in the

dataset. Even though some case-level analysis is undertaken in this research, no case is linked to any geographical location smaller than one of the 11 government regions, and the fact that they are chosen because they are average makes them even harder to identify. Therefore, even though respondents have not explicitly given consent for their data to be used in this way, there does not seem to be any ethical reason why it should not.

Indeed, it is perhaps unethical not to analyse the data, so that the respondents have not given their time and their stories for no reason. What is important, however, is that the analysis of the data is rigorous and transparent, and that it is not manipulated or partially revealed to tell a story that suits a particular agenda. Marsh (1982) argues that this is why quantitative research must always be deductive; it must start with a clear theoretical framework that is then operationalised, rather than an arbitrary selection of variables to produce data-driven conclusions. It perhaps also entails avoiding potentially spurious two-way associations by conducting a more complex statistical analysis that controls for intervening variables, as suggested by the theoretical framework.

Summary

This chapter has moved from the theoretical discussion in the previous chapter to a practical exposition of how these concepts will be operationalised. It has outlined how the theoretical framework becomes a statistical one, in which the building blocks of the theoretical framework are represented. The datasets that will be used here contain considerable information at the individual or household level – the resources and preferences – while the temporal difference between the two cohorts supplies the information on the impact of external factors. The methodological approach is based on the presumption of a clear distinction between two policy eras, and that parents in each era are experiencing qualitatively different environment in which to reconcile work and care. The next chapter explores these two eras in detail, and outlines why they are so different.

Chapter 5

Policy

This research compares the reconciliation of work and care under two specific policy eras. The era pertaining to the older cohort is that of the last Conservative government (1979-1997). Although John Major was the Prime Minister the year this cohort were sampled (1991), the prevailing policy environment is a direct legacy of Margaret Thatcher's government and the retrenchments of employment rights made during the 1980s. The era pertaining to the younger cohort is that of New Labour under Tony Blair, which began in 1997. These two eras are characterised by strikingly different policy approaches to the family and the state's role in helping them to meet their responsibilities, and this chapter will map out the key policies in each era.

The chapter begins with a little historical context of family policies in the United Kingdom, which takes the account up to the period just before the eras of interest, where much of the relevant legislation has its origins. It then goes on to consider the Conservative era, which was characterised principally by a retrenchment of this legislation, before considering the reforms that occurred during the New Labour era. The chapter also considers the socio-economic conditions that accompanied these policy eras, as these also have a potential economic role to play in influencing how families meet their work and care needs. The policy mapping here draws mainly on secondary sources of information about the policies, bringing in only selected primary sources. Thus, it is perhaps essentially more of a literature review than policy research per se, but a full documentary analysis of these policy reforms would be a considerable undertaking and beyond the scope of this research.

It is first of all necessary to delineate the policy area of interest to this research. The

research concerns itself with the way in which couples with children meet and divide their earning and caring responsibilities. Policies can affect both sides of this balancing act. Financial support to families can reduce the need to earn, giving them more time to care. Child benefit and child tax credits might fall under this category, although the latter may themselves be conditional on employment. On the side of caring responsibilities, childcare provision can ease the care requirement on families, allowing them greater opportunity to earn. Somewhere at the intersection of work and care are policies around flexibility in the workplace, which can make it easier to fulfil both sets of responsibilities without having to give up work completely. In reality there are a huge number of policies that can affect family incomes and time availability, particularly the wider tax and benefit system and the way it distributes resources towards or away from families with children. However, in order to retain a manageable scope for this policy survey, the focus here is on the types of policies described above; what might be termed work-family reconciliation policies.

This analysis will map the relevant policy developments along a number of key dimensions. Majchrzak (1984) suggests a number of salient features that should be considered when documenting legislative history, which can be divided into three stages.[1] The first stage is to consider how policymakers perceive a social problem; why and how they define it as a problem, and their assumptions about its cause and the 'best' way to solve it. The next step is to consider how they approached solving it; where the policy came from – the departments and individuals involved – and the mechanisms chosen, along with the stated and probable latent purposes of the intervention. Finally, policies occurring in the past can be assessed on the effect they have had on people and groups, and their success or failure to achieve the intended aims, as well as the unintended impact they have had. These elements will all be considered in the discussion of the policy eras below, to aid subsequent discussion of the actual intended and unintended consequences of the policies on the two cohorts.

5.1 Legacy

The development of work-family reconciliation policies in the UK should be understood in the context of the institutional history of the UK welfare state and the enduring political culture that has been established. The UK welfare state is rooted in certain key principles that have persisted regardless of who is in power. Kamerman and Kahn (1997)

[1] This tripartite distinction is not made by Majchrzak.

identify these as: a laissez-faire, liberal attitude to expenditure and intervention; the Protestant ethic; the spirit of the Poor Law, with its distinction between deserving and undeserving and its emphasis on personal and behavioural aspects of social problems rather than inadequacies of policies, institutions or the economy; and a bias towards the traditional family, with a reluctance to take on its responsibilities. It will be shown in this chapter that these themes have recurred over the last century and persist to this day. Furthermore, there is a gendered aspect, with persistent assumptions about women's roles that have relegated them to second class citizens in the eyes of the welfare state. Women have historically been assumed economically dependent on a male relative, and morally inferior (Woodward 2006).

Certain assumptions about gender roles and deservingness, established in the very beginnings of the welfare state, have shown great tenacity. The policymakers that drew up the 'new' poor law in 1834 assumed that all families were headed by a male breadwinner and a female homemaker, and that the male breadwinner was capable of supporting that family. This ignored the realities of industrial low pay, recurrent unemployment and early death that characterised working class employment, and thus put dependent women in a perilous situation (Thane 1978). Female dependency only extended as far as married women; unmarried mothers had no right to sue the father of their child for maintenance until 1844. Those unable to work were, by virtue of their destitution, entitled to poor relief, but their status did not automatically exempt them from hard labour in the workhouse.

The Poor Law system was replaced with a national insurance-based model in the early 20th century. This was universal in the sense that all workers contributed and received the same level of assistance in the event of unemployment or sickness. However, for women not in paid employment, the situation was remarkably similar to that under the Poor Law. Those with contributing husbands were entitled to some benefits such as a maternity grant, but were assumed otherwise to be taken care of. Those without contributing husbands received varying levels of residual provision depending on their perceived deservingness. The parliamentary debate at the time illustrates the prevailing attitudes about who deserves and who does not:

> In this Bill we are setting out to help those who are handicapped in life through no fault of their own – widows and orphans and veterans of industry who, having reached the confines of old age, are no longer able to maintain themselves with the vigour of their prime... Our object is not to undermine the self-respect and self-reliance of the people... Not only is it a contributory

> scheme but, as a matter of fact, it is not a complete scheme; that is to say, the State intervention will not relieve even these recipients of the necessity of making all other provision or effort. *(excerpt from second reading of Widows', Orphans', and Old-Age Contributory Pensions Act, 1925 in the house of Lords, Hansard 28 July 1925)*

The message was clear; citizenship, and the social rights that accompany it, are accrued by virtue of labour market participation. A two tier system is created, whereby those who contribute through social insurance can make far more claims on the welfare state than those who claim as dependent, unpaid care workers (Orloff 1993). The 'ideal citizen' is the citizen who participates full time in paid work, and those who do not are less than ideal, even if their labour force participation is constrained by factors beyond their control, such as a disproportionate burden of unpaid household work. The idea that women might deserve special help from the welfare state by virtue of their role of mothers was not entertained at this time. Early maternity provisions were aimed at reducing infant mortality and protecting children from incompetent mothers. The Maternity and Child Welfare Act 1918 established some child and maternal health services, but these were mostly advice based, the implication being that women were mentally or intellectually, rather than materially, incapable of raising children (Brown and Small 1985). Women were compelled from 1895 to take four weeks' maternity leave on the grounds of health and safety, but this was uncompensated and held no guarantee that their job would be available after this time, and Britain refused to ratify the 1919 ILO Convention on Maternity that would give women the right to return to work and to maternity pay. Although women with contributing husbands were entitled to access to some health care, specialist maternity care was not available for free until the establishment of the National Health Service.

The health and welfare services established after the war did introduce an element of universality, but although all women benefited, inequalities between women, and between women and men, were reinforced by what remained a gendered, two-tier system. Even the administrative structure reflected the idea of differential entitlements to social rights, with the contributory scheme administered by the Ministry of National Insurance, while the Ministry of National Assistance dealt with means-tested benefits and implementing the 'national minimum' (Glennerster 2007). William Beveridge, in his vision for the welfare state, had explicitly assumed a male breadwinner norm, predicting a female labour force participation rate of just 1 in 8 (Beveridge 1942).

The new provisions represented a step forward for mothers in many respects. All women

became entitled to free maternity care in 1948, and a family allowance in 1946. This was a non-contributory benefit paid to the mother, although only for second and subsequent children. Although this was a flat rate benefit, tax clawback meant that it was less valuable to taxpayers, and was in effect a redistribution from rich to poor families (Adam and Brewer 2004). The fact that it was funded by tax and payable to non-working mothers also meant that it was effectively a redistribution of family income from men to women (Blackburn 1995). However, there was still a strong contributory element to mothers' entitlements. Maternity grants were still only available to women who made national insurance contributions, or whose husbands did. In 1948, contributing women also became entitled to a maternity allowance for 13 weeks to replace earnings, which was extended to 18 weeks in 1951 (Cohen 1988). However, along with this extension was a tightening of the eligibility requirements, amid fears that women were claiming the allowance and then not returning to work, and were therefore not in need of it (Brown and Small 1985). This move away from universality meant that the 1952 ILO Convention extending paid maternity leave to all working women, regardless of hours of work or length of service, was not ratified by the UK. The tightening of the criteria also came at a time when the number of nursery places was rapidly declining. After the war there had been 62,000 nursery places, but two thirds of these had closed within twenty years (Cohen 1988). The government was reluctant to provide nursery places as a way of helping women reconcile work and childbearing. Influenced by psychoanalytic theories about the consequences of maternal deprivation (e.g. Bowlby 1951), nursery care was seen as a corrective force against bad parenting but otherwise harmful for children under 5.

Policies aimed at helping women reconcile work and childbearing started to appear in the 1970s, with the introduction of key labour market policies that gave mothers a more equal footing in the labour market. The increase in female employment in the 1960s was facilitated by a particularly high demand for labour during this period, which gave women greater leverage to push their interests at work (Kiernan et al 1998). Both Labour and the Conservatives began to demonstrate greater commitment to women's rights. The 1970 Conservative manifesto pledged to remove sex discrimination in law, and the 1974 Labour manifesto went even further, promising equality in education and employment. The Equal Pay Act was introduced by the Conservatives in 1970, when the moral case for equal pay eventually defeated the government's economic concerns about it. The Sex Discrimination Act, introduced by Labour in 1975, gave further recourse for women facing unequal treatment in the workplace.

The increasing female workforce had been agitating for statutory occupational maternity provision, and the government was also under pressure in this area from the European

Economic Community after joining in 1973 (Brown and Small 1985). This was introduced by the Labour government through the Employment Protection Act 1975. After this was implemented, all women with two years' continuous employment were entitled to return to work up to 29 weeks after confinement, provided they fulfilled certain notice requirements. Despite having the right to an extended period of absence, the low level of compensation meant that taking the full entitlement was dependent on being able to afford the loss of income.

However, returning to work meant paying for childcare, as there was very little free provision until the year before compulsory schooling. The government was reluctant to provide childcare for young children, except as a corrective force against bad parenting. This attitude was informed by the Plowden report (Central Advisory Council for Education 1967), which had weighed up the evidence for and against nursery provision. It concluded that, as far as children under 3 were concerned, government nursery provision was for those with a "social handicap" (para 295), and it is "no business of the educational service to encourage" (para 330) mothers to work. It recommended that full time nursery places should only be provided in exceptional circumstances, even if the child can tolerate maternal separation without harm. Although more positive about nursery education for 3 and 4 year olds, it recommended that even this should be on a part time basis only. The 1972 White Paper *Education: A Framework for Expansion* reflected these values, and in fact contained little commitment to expansion. It was envisaged that only 15% would be in full time care, and most of these would be those from socially disadvantaged or lone parent families. More ambitious targets were set for part time nursery places – 50% of 3 year olds and 90% of four year olds – but these were not met (Cohen 1988).

5.2 Policy under the Conservatives, 1979-1990

After the gains of the mid-1970s, the period of Conservative government from 1979 was one of retrenchment of these provisions. The New Right movement, of which Thatcher was a part, had struck a chord with a public increasingly disillusioned by the interventionist consensus around the welfare state that had dominated the post-war period (Lloyd 2002). This gave them a mandate to cut what had come before, the government rolled back its responsibilities, expecting the family to take the strain (MacLean 2002). The government needed traditional nuclear families to exercise social control and take care of their own dependants; any other type of family was therefore problematic

(Kamerman and Kahn 1997). Moral hazard, the principle in economics that all insurance policies create incentives to act less carefully, was extrapolated to a belief that the safety net of the welfare state was causing irresponsible family behaviour. Furthermore, removing the safety net was assumed to reverse this behaviour:

> By enlarging the role of the State and diminishing the role of the individual, they [Labour] have crippled the enterprise and effort on which a prosperous country with improving social services depends...We want to work with the grain of human nature, helping people to help themselves - and others. This is the way to restore that self-reliance and self-confidence which are the basis of personal responsibility and national success. *(1979 Conservative Party Manifesto)*

The outcome of this kind of ideology can be highly gendered, even though everything is couched in gender neutral terms. The effective functioning of the public sphere – the state and the market – depends on the maintenance of the private sphere through unpaid care work. It did not matter to the Thatcher government who performed the child care, as long as it was accomplished without any need for them to intervene. However, as this type of labour is done predominantly by women, who arguably lack the power to change this situation unaided, the status quo is perpetuated through the government's apparent gender blindness (Pascall 1997). It was inconsistent with a non-interventionist approach to give mothers greater economic power within the household by helping them back into work, or rewarding them for staying at home. Welfare state retrenchment was selective; child benefits were frozen, while mortgage relief and tax subsidies on pensions were increased (Pugh 1994). Thus earners, not carers, received financial help from the government, reinforcing the gendered way in which these activities are divided.

The policy implications of this ideological environment was to push the balance of maternity rights back towards employers, amid fears that the legislation was placing an unreasonable burden on employers, and in a general context of hostility to intervention in the workings of the free market. The Employment Acts of 1980 and 1982 restricted and complicated maternity rights. A woman was now only entitled to maternity leave if a company had more than six employees, and had the right only to return to a "suitable alternative", not her original job, with no automatic right to reduced hours (Kamerman and Kahn 1997). The procedure for applying for maternity leave also became more complex and bureaucratic for employees; women had to notify their employers on three separate occasions of their intent to return, and provide a medial certificate with their

baby's due date (Cohen 1988).

Mothers who wanted to return to work still faced the problem of a lack of childcare, and the government came under pressure to help families meet their childcare responsibilities, although there was considerable disagreement on the form that this support should take. While childcare experts such as Penelope Leach and Mia Kellmer-Pringle argued for supported maternal care, organisations such as the Trades Union Congress and the Equal Opportunities Commission argued that this was incompatible with prevailing patterns of work, and pre-school childcare should be universally available (David 1982). However, the government resisted these calls and childcare remained limited; no specific commitments were made to funding childcare places, and the idea of tax credits or deductions for parents to spend on childcare was rejected on the grounds that this is personal expenditure and ineligible for tax relief on principle (Cohen 1988). A similar attitude was held towards parental leave, on which the government for a long time resisted pressure from Europe, on the grounds that it was not an appropriate matter for legislation (Kamerman and Kahn 1997).

The 1988 Maternity Rights Survey (McRae 1991) collected data from nearly 5000 women with babies born in December 1987 or January 1988, and gives some idea of how mothers experienced these provisions in practice. 53% of the mothers surveyed had been in work during pregnancy, ranging from 74% of those having first child to 23% of those having their third or subsequent. This shows how, by the end of the 1980s, the needs of working mothers was far from a minority issue, and a world away from the 1 in 8 figure that Beveridge had estimated. 60% of those who worked during pregnancy qualified, under the continuous service and national insurance contribution conditions, for the 'right to reinstatement' after 29 weeks of absence for pregnancy. Thus, a substantial minority had no legal protection within that framework. This is important because while 28% of employers surveyed said a non-qualifying woman could come back, 57% said it would depend on the circumstances. Thus, women not meeting the conditions had a precarious employment situation in the event of pregnancy. 72% of women with the right to return did so, compared with 47% of those without. This suggests that the latter found it harder, and found their requests denied by employers, although it is difficult to untangle the direction of causality, as they may not have anticipated returning and therefore not attempted to fulfil the criteria.

As far as maternity pay was concerned, 86% of those who appeared, on the basis of the information requested from them in the survey, to fulfil the criteria for basic rate Statutory Maternity Pay received it. For higher rate Statutory Maternity pay, the rate of

receipt was slightly lower at 72%. Thus, implementation fell short of policy in practice, although the majority of women received what they were entitled to. When asked what they would improve, 26% of mothers who worked during pregnancy said they wanted to improve the rights available to them, although most of these complaints were around length of leave rather than extension of eligibility. The main issue arising was the lack of childcare, with half saying they wanted improvements such as workplace crèches and state provided childcare. This is perhaps unsurprising given the limited childcare provision outlined above.

Although the results of this suggest a certain level of dissatisfaction among mothers, this was not necessarily expressed at the ballot box. It was perhaps a lack of support for mothers – along with a preoccupation with typically male issues such as war (in the Falklands) – that meant that, although the Conservatives held on to power, the traditionally stronger propensity for women to vote Conservative disappeared during the 1980s (Norris 1996). However, nor were women seduced by Labour's attempts to appeal to potentially disillusioned women, by pledging in their 1983 manifesto to strengthen the Equal Pay and Sex Discrimination Acts, and to reverse welfare cuts, as the party lost female voters to the Liberal Democrats in that election.

5.3 Post-Thatcherite softening, 1990-1997

The period of Conservative rule under John Major, from 1990 onwards, was characterised by continuity in a commitment to laissez-faire capitalism and labour market deregulation. However, government policy began to display a tendency towards social conservatism that had not been there under Thatcher. A growing section of the population could not adequately be supported by a system based on the assumption of male-breadwinner sufficiency, whether due to divorce, single parenthood or low income. The government's response to this material problem was a moral one; to exhort a return to traditional family forms through its 'back to basics' campaign, a more explicitly moralistic approach to family policy. The theme of family breakdown gained real prominence at the 1993 Tory Party Conference, with the message picked up widely by senior party figures and the tone of speeches explicitly moralistic (Lister 1996). The government's commitment to individual responsibility over state support was also illustrated by Major's brainchild, the Child Support Agency, which cost more to run than it collected and illustrated the paradox of the need for interventionist policies to ensure the continuation of a policy system based on laissez-faire ideals. The first problem with this 'moral'

solution is that it did not work materially; the section below on socio-economic change documents the rising levels of single parenthood, poverty and welfare dependency over this period. The second issue is that it did not work politically, as the campaign was discredited by revelations of sleaze and domestic scandals among senior Conservative MPs, further weakening the party's already diminished support (Lloyd 2002).

Other policy developments over this period included the reform of family taxation in 1990, which carried a mixed message about families and the balance of work and care. The Conservatives had been talking about tax reform since 1981, with the Green Paper *The Taxation of Husband of Wife*, and reform eventually occurred in 1990, with a switch to individual taxation and the replacement of the Married Man's Allowance with the Married Couples' Allowance. A move to individual taxation was a recognition of women's contribution to their family income and their right to their own tax free allowance, albeit in the spirit of New Right individualism. The reform was also characterised by a degree of social conservatism; the move to a couples' allowance had practical impact only if a wife's earnings were higher than the single person's allowance and her husband's were not, and married couples were also still advantaged over unmarried couples by around £400 per year (Robinson and Stark 1988).

The limited developments that occurred in childcare policy were perhaps the beginning of an acceptance of childcare as political as well as personal, although the nature of the policy provisions reflected the prevailing moral climate of non-intervention and female caregiving. The 1990 Finance Act granted tax exemptions to employers who provided childcare facilities, but this left the existence of this care up to the supply side rather than the demand, and did not put any obligation on the government to increase state provision. The government was prepared to make some investment in after school care; around £45 million in 1993, which created around 50,000 places (Kiernan et al 1998). However, this limited provision served to reinforce the idea that it was not the government's job to help women with preschool children into the labour market.

Unlike Thatcher, Major appointed women to his own cabinet, including a female employment secretary, Gillian Shepherd, who set up a Women's Issues Working Group. However, this increased interest needs to be seen in the context of continued labour market deregulation and the effect this had on women's pay and conditions (Lister 1996). The government did little to help the situation for working women, with no change to maternity leave until the 1996 reforms under pressure from Europe. The Trade Union Reform and Employment Rights Act 1993 implemented (in 1994) a directive that brought UK provision up to a minimum European standard, giving all female employees a right

to 14 weeks of unpaid leave, with qualifying employees still entitled to 29. However, the government opted out of the Social Chapter, which would have further strengthened mothers' employment rights, and refused to implement a directive on parental leave. Thus some extension of maternity provision did occur towards the end of the Conservatives' period in office, although they dragged their feet, refusing to extend any provision to men or to increase maternity pay.

5.4 Policy under New Labour after 1997

The period of government under New Labour saw considerable expansion in support for families. New Labour's financial commitment to families was demonstrably higher than that of their predecessors; the overall level of financial support to families increased considerably after 1997. Average child-contingent support per child per week increased from £24.13 in 1997 to £38.92 in 2006-7, and total spending on child-contingent support was 61 per cent higher in 2006 than it was in 1997 (Daly 2011). The new system of tax credits introduced in 1999, the Working Families' Tax Credit, was more generous than the Family Credit it replaced; the amount of support available was higher and phased out more slowly with earnings, and formal childcare costs were met by an additional tax credit that covered up to 70% of the cost (Brewer et al 2006).

Maternity leave was also extended, both in terms of the time available and through its extension to more women, although maternity pay remained conditional on employment history. New Labour inherited a dual system of maternity leave from the previous government, that combined a conditional entitlement to 29 weeks, which had existed since 1975, and a universal entitlement to 14 weeks, which was introduced in 1994 in order to implement an EU directive. The first stage of reform was through the Employment Relations Act 1999 and the Maternity and Parental Leave Regulations 1999, which unified these provisions, setting out a more coherent framework that distinguished between different types of maternity leave. Some limited extension also occurred at this stage. The universal component, now called Ordinary Maternity Leave (OML) was extended from 14 to 18 weeks, and the required service for the conditional leave, now called Additional Maternity Leave (AML) was reduced from two years to one. The second stage of reform, through the Employment Act 2002, extended both OML and AML to 26 weeks, with the qualifying period for the latter reduced to 26 weeks. Thus qualifying women were now entitled to a year's leave, and a period of maternity pay that was also extended to 26 weeks. Although the amount of payment received still depended on a woman's em-

ployment history, the earnings threshold was abolished, and the flat rate payment was increased from £60 to £100. A third stage of reform subsequently occurred for babies born after 1st April 2007; all mothers became entitled to a year's leave and the maternity pay period, although still conditional, was extended to 39 weeks and the flat rate payment increased to £123.

More innovative by UK standards was the introduction of parental and paternity leave. The 1999 Employment Rights Act implemented the EU minimum provision, which is an entitlement of both parents to thirteen weeks' unpaid leave in the first five years of their child's life. Paternity leave was included in the 2002 Employment Act, and introduced in 2003, entitling qualifying fathers to two weeks' leave at the birth of their child, compensated at the same rate as the statutory maternity pay. The possible transference of care responsibilities to men was novel in the UK, where there has long been not only an association of fatherhood with breadwinning, but also a reluctance to undermine this role in case it increases the number of fatherless, delinquent children reliant on state support (Lewis 2002). However, the actual extent to which the new policies enabled fathers to take on non-traditional roles remained limited under New Labour. Parental leave facilitates time with children on an ad-hoc rather than consistent basis, and the fact that it is unpaid may make it unaffordable. Although paternity leave is compensated, the low rate of benefit may make it unaffordable as well. However, even if fathers do make use of it, the gender disparity between the amount of leave allocated to parents does little to undermine a traditional division of labour.

Another innovation was the introduction of the right to request flexible working, such as part-time hours or flexibility over start and finish times. The Work and Parents Taskforce was set up in 2001 by the then Department of Trade and Industry, with the job of devising 'light touch' legislation that could help working families without imposing too large a burden on businesses. The legislation reflects this compromise; it is not a guaranteed right to flexible working, but the onus is on the employer to justify a refusal. The Employment Act 2002 gives an employee the right to request changes to the hours, timing or location of his employment in order to care for a child. However, there are several grounds on which an employer can give a business case for refusal, such as the burden of additional costs, an inability to re-organise work amongst existing staff, and a detrimental impact on quality or performance.

On the other side of the work-care equation, support for childcare also increased, although the situation remained far from one of universal access to good quality, affordable childcare. The government set out their strategy for childcare at the same time as

their strategy for family policy reform, in the 1998 White Paper *Meeting the Childcare Challenge* (Department for Education and Employment 1998). The emphasis was on filling the gaps and correcting the deficiencies in the market provision of care, rather than directly providing childcare services. Deficiencies such as low quality childcare would be addressed with more rigorous and consistent regulation and a new qualifications framework for childcare professionals. Gaps were targeted from both the supply side, through subsidies for nurseries, and the demand side, by giving parents money for childcare through the tax credit system. A review of childcare provision in 2004 (HM Treasury 2004) renewed and reinforced the government's commitment to this indirect investment in childcare, pledging even more support through the tax credit system.

The manifest rationale for the legislative reform was set out in the 1998 Green Paper *Supporting Families*. This promised an expansion in the level of material support to families, and contained the genesis of some of the policy innovations that would follow, such as a framework of rights on flexibility and working time, and improvement of part time work conditions, and a proposal for parental leave. It was a pioneering document at the time because it was the first ever explicit statement of family policy from a government, setting out their beliefs about families and the issues they face, and crucially a cross-departmental plan for addressing these issues. New Labour rejected the emphasis on the nuclear family of their predecessors. The foreword by then Home Secretary Jack Straw sums up the government's attitude, which was one of supporting families regardless of whether they conformed to the nuclear family paradigm:

> Government could not turn the clock back even if it wanted to do so. There never was a golden age of the family. Family life has continually changed – and changed for good reasons as well as bad. But what families – all families – have the right to expect from government is support (*Supporting Families*, p2) .

However, although there was a move away from an emphasis on the nuclear family, that is not to say that New Labour's strategy had no normative position on family life. The Green Paper was clear; "Work offers the surest way for families to provide for themselves" (p24). The strategy was predicated on getting mothers into work, by making it practically easier, through extending maternity leave and flexible working provisions, and financially less detrimental by offering tax credits conditional on a certain level of employment, and more support for childcare. Thus, there was still an idea of the deserving family – those working but struggling to meet their responsibilities – and the

undeserving.

For the deserving, New Labour's intentions represented a clear departure from their predecessors in the extent to which the role of government is to redistribute towards families, and what followed was, as detailed above, a substantial increase in state support for families. What had been seen as private by the Conservatives – arrangements between employers and their employees, childcare arrangements – became legitimate targets of state intervention and support under New Labour. For example, the legitimacy of government spending on childcare is asserted in a 2004 review of childcare provision:

> Parents should not be expected to meet all the costs of high quality childcare services. Government support for childcare is based on the principle of progressive universalism, with some support for all and most support for those who need it most. Given that childcare benefits society as a whole, a modern childcare system should ensure that parents are not prevented from accessing high quality childcare provision on the grounds of cost. Availability of childcare plays an important role in tackling disadvantage and child poverty, and supporting social mobility and equality of opportunity (HM Treasury 2004, p4).

Also novel in their strategy was an increased willingness to interfere in the operation of the labour market, by mandating greater flexibility and longer leaves for mothers. However, this departure from the laissez-faire was only a partial one, and there were limits to the extent to which they were willing to put pressure on businesses, or mandate what would represent a cultural discontinuity. This is ideologically consistent with the principles of the Blairite, Third Way approach, but it is also for reasons of policy efficacy. The White Paper *Fairness at Work*, which formed the basis for the first extension of work-life reconciliation policies under the 1999 Employment Relations Act, argued that the law cannot create a culture of family-friendliness, but only enhance it. The government were also keen to stress the business and wider societal case for family-friendly employment as well as the benefits for families; these rationales were promoted simultaneously and seen as complementary (Lewis and Campbell 2007). Businesses can retain talent and have a more productive workforce, while high maternal employment rates are desirable because they boost economic growth and reduce the need for state support:

> ...employers can also benefit from having a more committed workforce, and from being better able to retain and recruit parents. Society as a whole can

> also benefit, since a better balance between work and family should lead to less reliance for care on the NHS and social services and fewer social problems such as truancy and marital breakdown (*Supporting Families*, p24).

One thing that family policy under New Labour had in common with the previous era was the central role of pressure from the European level in driving forward work-family policy. The goal of work-family reconciliation, with an emphasis on achieving this by facilitating female employment through childcare rather than more traditional options, became more integrated into the European Employment Strategy after 1998 (Lewis 2006). However, the European Employment Strategy is an example of 'soft law'; it is not binding like directives. This is perhaps why extensions in maternal and parental leave, both directives, have been implemented, while childcare provision remains limited by European standards (Leon 2009). The extension of employment rights through the implementation of directives raises questions over the extent to which the government sought to extend these rights on their own initiative, or whether they were given the impetus to do so by external forces (Mair 2000).

The 2005 Maternity and Paternity Rights and Benefits Survey of Parents (Smeaton and Marsh 2006) gives an idea of how mothers experienced the first stage of family policy reform under New Labour. 75% of mothers had worked during pregnancy, and of these, 74% returned to work. If we compare this to the 1988 survey, the proportion of mothers in employment is around 25 percentage points higher, but the proportion returning to work is actually quite similar. In 1988, 72% of mothers with the right to return to work did so. By 2005, all mothers who had been employees had this right, therefore the rate of return is comparable. Maternity pay was still conditional on meeting certain criteria, but the vast majority of mothers said they received some form of pay during their maternity leave; only 10% said they received nothing at all.[2] 74% of mothers received maternity pay for 26 weeks, but only half took only this much leave, suggesting that many mothers took periods of unpaid as well as paid leave. 25% said they would have liked to receive maternity pay for a longer period, and 28% cited financial strain as a key problem. The limitations of the expansions in childcare were also evident, as this stood out as a key concern, with issues raised about the availability, cost and quality of childcare available.

[2]It is difficult to compare this with the figures for 1988 because different questions were asked around eligibility and receipt, and eligible non-recipients are assumed to be mistaken rather than denied their entitlements.

5.5 Socio-economic context

The development of these policies is bound up in a series of concurrent socio-economic changes, and their discussion would be incomplete without some consideration of this context. These changes had an impact on the development of the policy, which had to change to reflect socio-economic change, albeit that it did so with some considerable time lag. These policy changes in turn have an impact on the desirability of different work and care reconciliation options for families, as policy and other social and economic factors work to privilege some options over others. This research is more orientated towards understanding the latter part of this equation; the impact of external factors on household outcomes. However it is necessary to consider the behavioural and normative changes that characterised the period under the Conservatives, and preceded and provided the impetus for the New Labour policy reforms. This section will consider these trends, focusing in particular, where the available statistics allow, on the period between 1991 and 2004, as per the time frame of interest for this research.

As Chapter 1 documented, the second half of the twentieth century saw a steep increase in female labour market participation (figure 1.1). It was not just childless women entering the labour market, but also mothers. In 1951, around 1 in 6 mothers were employed; this had tripled by 2008 (Klett-Davies and Skaliotis 2009). Much of the change in this respect had happened before the period of interest here; by 1992 maternal employment among married or cohabiting mothers was 62%, and by 2004 it had increased by around nine percentage points (Klett-Davies and Skaliotis 2009). Thus, much of the change took place under a family policy model situated firmly within a male breadwinner paradigm, with little support for second earners to reconcile work and care, and indeed a period of active retrenchment of what had been in place.

Indeed, the assumption of nuclear families under Thatcher, and the active promotion of them under Major, is at odds with the prevailing context of wider shifts in family and morality. The second half of the twentieth century saw a rise in cohabitation and births outside of marriage. Someone in the 25-29 age bracket getting married in the early sixties was unlikely to have cohabited prior to this – just 4.6% of men and 7.7% of women – but by the early nineties these figures were 66.3% of men and 71.3% of women, and by the mid-2000s this had further increased to 72.7% and 78.0% (Beaujouan and Ní Bhrolcháin 2011). Therefore premarital cohabitation was already the norm even for the older cohort. Births outside of marriage also saw a steep increase, from 8.4% in 1971 to just under a third in 1991 and nearly half in 2009 (Beaumont 2011). These

activities, so rare in the 1950s, were not deviant behaviours by the end of the century. Despite this, the Conservatives seemed to believe that the clock could be turned back on family life, even as everything else in the world moved forward (Smart 1997). These trends are what New Labour finally acknowledged in *Supporting Families*; that families take different forms, that they are more likely than not to have more than one earner, and that this is difficult for them to balance their responsibilities in a system that is not set up for this type of family.

The rise of working motherhood coincided with an increase in earnings opportunities for mothers, which itself was most likely a product of this increased labour market demand from mothers. The expansion of the service sector, in which women are more likely to be employed, created new opportunities for female employment. In 1970, industry accounted for 44% of employees; this had fallen to around a quarter by the early 1990s, with the service sector now accounting for nearly three quarters of employees (OECD 2004). As women make up just over half of this sector, it is easy to see how women were absorbed into the labour market through the expansion of this sector. It is worth noting, however, that little changed in these respects over the period of interest; the majority of the changes happened as the older cohort were growing up, and the situation levelled off as they reached adulthood.

The jobs that were created in the sector were also particularly suitable for women with care responsibilities because many of them did not fit the full-time, permanent, standard hours model of employment that is difficult for those with such responsibilities. There was a growth in 'flexible' employment; jobs with part-time or irregular hours, or shift work, or that were on a temporary or self-employed basis. A quarter of male employees and just over half of female employees had jobs characterised by one or more of these things by 1996 (Dex et al 1999). However, this flexibility could be a double-edged sword for women. Although it offered them the chance to reconcile work and care, these jobs existed because they were beneficial to employers, who took advantage of the decline of trade unions during the 1980s and an influx of workers with care responsibilities to offer positions that were lower in pay and status than their full-time equivalents (Dex et al 1999). It could therefore be said that the market created its own solution to the problem of reconciling work and care, albeit one that came at a price for gender equality, particularly as the Equal Pay Act is irrelevant here; if the work is not identical, the pay does not have to be the same. The extension of the right to request flexibility to all employees under New Labour was therefore important because it tried to bring this flexibility to all jobs, not just the poorly paid or unstable, meaning that mothers should not have to choose between a good job and one that fits around their care responsibilities.

As working motherhood became more commonplace, it also became more normatively acceptable, and attitudes softened towards working mothers. In 1989, 28% of respondents in the British Social Attitudes Survey believed that a woman's job is to look after the home and family, and 64% thought that a woman with a pre-school child should stay at home; by 2002 this had fallen to 17% and 48% respectively (Crompton 2006). Therefore a change in attitudes can be seen even during the course of the 1990s, over the period of interest here. The increase in premarital cohabitation and births outside of marriage was also accompanied by a softening of attitudes towards these phenomena. For example, in 1984, 48% thought premarital sex was rarely or not at all wrong, but by 2006 this had risen to 70% (Duncan and Phillips 2008).

Summary

This chapter has outlined two eras which, although only twelve years apart, are characterised by quite different policy and socio-economic conditions. A laissez-faire approach to family policy in the 1980s, characterised by very little support for the reconciliation of work and care, gave way to a more interventionist approach with the election of a new government in 1997. Support for working mothers has been considerably extended, although there is still some way to go before it might be said to facilitate full-time employment, particularly with respect to the provision of childcare. It is on this difference between the two eras that the empirical strategy rests, and the ensuing chapters will establish the extent to which these differences may be related to differences in mothers' work participation and the division of paid work and care in the household.

Chapter 6

Turning back the clock? The division of paid work and care

This chapter is concerned with the intra-household division of paid work and care. It looks at the first of the two questions raised at the end of Chapter 3; the impact of policy on the options couples have, and use, in reconciling their work and care responsibilities. In particular, it is interested in the extent to which the roles and tasks assumed by parents have a gendered pattern, and the extent to which this gendering has shown continuity or change over time. By comparing two cohorts of parents raising children in different eras, it is hoped that this analysis can reveal something about the drivers of continuity and change, particularly that of the external environment in which decision-making takes place. The chapter begins by setting out the specific questions under consideration, and derives hypotheses regarding these questions from the theoretical framework and some case study analysis. It then carries out some descriptive analysis, before implementing a logistic regression model of the division of childcare.

6.1 Questions

The point of departure here is one of the key paradoxes encountered thus far; the asymmetry between the increase of mothers' paid work and the increase in fathers' unpaid work. The statistics presented in Chapter 1 showed the expansion in women's human capital and employment experience, both in absolute terms and relative to men's,

over the last fifty years. However, the household-level time-use statistics showed that women's increased labour market participation has been accompanied but not yet matched by men's increased performance of household tasks. This chapter is concerned with what has happened at the intra-household level.

The first aim is to establish the extent to which the changes in women's labour market participation documented in the earlier chapters of this thesis are reflected in changes in the intra-household gap in paid work participation and remuneration. In order to establish empirically the difference between the cohorts with respect to the distribution of human capital and mothers' economic contribution to the household, the following questions will be addressed:

1) How large are intra-household human capital disparities in the two cohorts?

2) How gendered are employment outcomes in the two cohorts?

3) What is the relative size of mothers' economic contribution to the household in the two cohorts?

The second aim of this chapter is to relate change and continuity in these disparities to change and continuity in the division of childcare. Thus the key questions of interest are:

4) What factors are associated with the sharing of childcare?

5) Are couples in the younger cohort more likely to share childcare?

6.2 Generating hypotheses

This section will use the capabilities framework developed in Chapter 3 to develop a theoretical foundation on which to base the empirical investigation of the above questions. The household division of work and care is understood through the lens of this framework, as an interplay of resources, conversion factors and preferences. These ideas will also be illustrated using case-level analysis of individual cohort members, as per the approach set out in Chapter 4. From this, hypotheses will be drawn for testing in the ensuing empirical analysis.

6.2.1 Continuity and change in the division of paid work and care

Chapter 3 developed a theoretical framework that used a capabilities approach to frame an understanding of the link between relative resources and outcomes in the household. The persistence of gendered outcomes, which do not reflect narrowing gaps in relative earning potential and performance, are not paradoxical at all in this framework. Rather, they are to be expected because of the existence of barriers – the conversion factors – between resources and outcomes. The rationality of the division of labour is only part of what influences its final outcome, as it is mediated by practical and normative conversion factors. Therefore it is necessary to understand continuity and change in both resources and conversion factors, in order to understand continuity and change in outcomes over time. This section will consider each of these elements in turn.

Resources

In the capabilities framework, a higher level of resources increases the set of genuinely possible options, referred to as the capability set. In the context of the household division of labour, the key resources are the human capital factors that endow market earning capacity. The absolute level of human capital in the household affects the options available to the couple as a household. A high-earning couple may be able to afford the childcare that would permit them both to work full-time, or to live on a single income, whereas a lower earning couple may have fewer options for the reconciliation of work and care. Therefore, at the household level, human capital augments the possible set of options.

However, it is also important to consider human capital from a relative perspective as well. Most theories outside of orthodox economics construct work-care decisions as a conflict of interests between the couple to some extent, and the individual's potential and actual earnings as a key source of power in achieving their most preferred outcome. The relative level of this economic power may be as important as the absolute level in determining which options make it into the capability set. Empirically, we might expect to see mothers in the younger cohort having more earning power relative to their partners, given the extent to which women have caught up with men at the aggregate level. However, the implications of this for household outcomes depends on preferences regarding work and care.

Conversion factors

Household outcomes are not merely about the resources that each partner brings to the table, as these decision-making processes do not take place in a vacuum. Conversion factors shape the way in which the household as a whole, and each partner within it, can convert their resources into capabilities. As outlined in Chapter 3, a distinction is made here between practical and normative conversion factors. The former affect what is practically possible, the latter affect what is normatively acceptable. A key premise of this research is that the two cohorts face different conversion factors due to the different policy, economic and social environment in which they are raising their children. However, the extent to which these differences augment the set of available options is ambiguous.

Practical conversion factors affect the way in which human capital resources can be converted into labour market opportunities. There are differences between the labour market opportunities facing the two cohorts, particularly the mothers. Although fathers' labour market opportunities are affected by the prevailing economic climate, the key change is the extent to which those with caring responsibilities can access the labour market, and this primarily affects mothers. Much of this difference is to do with the increased policy support available to assist the reconciliation of work and care. As outlined in Chapter 5, the laissez-faire approach of the Conservatives in the 1980s and early 1990s gave way to a more hands-on approach by New Labour. This extended policy provision, although arguably still lacking the necessary generosity to give all families a wide range of work-care options, represented greater support for working mothers. Extending the right to return to work, and the right to request some flexibility when they do, gives mothers greater opportunity to use their human capital. Therefore we might expect women in the younger cohort to have better opportunities to deploy their human capital.

However, because these rights are either restricted to mothers or used primarily by them in practice, the intra-household disparities in the way that mothers and fathers use their human capital remain, and are perhaps even strengthened. Well-intentioned policy reform may have had the unintended consequence of undermining the human capital gains that mothers have made, and tipping the balance back in favour of gendered specialisation. The policy environment encourages mothers to take a long break from employment, followed by a return that is planned around her childcare commitments. Although she remains formally employed throughout, in human capital terms this is not the same as continuous participation. Meanwhile fathers, entitled to just two

weeks' leave, are encouraged not to take time out, and to take on the role of primary earner. Therefore, even if a couple have equal earning power before having children, a gender disparity is likely to appear once they have children.

The material presented so far has suggested both continuity and change as far as the difference between the two cohorts is concerned. The data reviewed in Chapter 5 suggested a greater normative acceptance of working motherhood, and less gendered conceptions of mothers' and fathers' roles. However, the qualitative research reviewed in Chapter 2 suggested the persistence of a gendered sense of entitlement in mothers' evaluations of their own contributions and entitlements. Mothers' employment is still constructed as secondary, and her role as primary carer taken as given, even in couples with very similar levels of human capital. This is likely to imply continuity in gendered outcomes between the two cohorts.

Preferences

It is difficult to say from the material presented so far how these preferences might differ between the cohorts. Although macro trends have been of softening attitudes to maternal employment and greater endorsement of egalitarianism and role sharing, there will be individual-level variation within this. The ensuing empirical analysis will attempt to capture these individual preferences, through variables giving respondents' personal family attitudes. Ideally this heterogeneity would be controlled for statistically, perhaps with a random effects model. However, the data here is not amenable to this type of modelling because it does not measure the same individual at two points in time, but compares different individuals at different points in time. Therefore there is no way to distinguish in this analysis between whether continuity in gendered patterns is because these patterns are impossible to subvert, or because couples simply do not wish to subvert them.

6.2.2 Case studies

The idea put forward above of the persistence of gendered norms, despite limited gender disparities in human capital and employment behaviour, clearly emerges when the cases are examined at the individual level, in a more narrative way. It is rarely clear from a relative human capital perspective alone why specialisation has occurred in the way it has, and there is a very plausible role of the normative and practical conversion

factors outlined above. These elements interact and influence each other, and this can be illustrated by looking at individual cases and examining the inter-relation of these factors.

Sometimes the human capital differences are obvious. For example Sam's (BCS, stay-at-home mother) husband is a full time software engineer in a managerial position with good wages. Sam, on the other hand, has never held a professional job, and has not been in work at all since her first child was born five years ago. Her likely wage, based on her qualifications and experience, suggests that a part-time position of 15 hours per week would be likely to earn her £57, which would amount to 16% of the combined household income.[1] If she and her husband do not value this small contribution enough to justify the costs of her working, or if it is not even enough to cover these costs and results in a net loss of household income, then gendered specialisation is rational. Indeed, Sam has very traditional family attitudes, suggesting that she values home care of her children over the small amount of extra income, or any further personal benefit from working.

However, these differences are not always so clear cut. For example, Susan (NCDS, part-time) has given up a professional occupation, nursing, to be the main carer and secondary earner in the household, despite the fact that her husband's job is in the Lower Supervisory and Technical category (NS-SEC class 5), with below average earnings. Having invested time and money in obtaining her qualification, she went on to work full-time as a nurse for over ten years before having children; this suggests considerable commitment to the role. However, her relationship with employment seems to have changed since having children; she has taken three years out of the labour market to care for them, and she has never returned to nursing. Any employment since having children has been intermittent, part-time, short-term and low status. Perhaps she sees mothering as something that should be prioritised over employment, at least while her children are young. However, the prevailing policy environment will not have helped her to gain well-paid, secure employment, and the intermittent nature of her employment attachment will have further compounded her lack of employability.

Carol (NCDS, part-time) has no post-16 qualifications and has never held a professional job, but nor does her husband, and yet she has assumed the role as main carer and a very peripheral earner. Before having children she had worked full time in an intermediate-level job. Since having children she has taken time out of the labour market and then returned part time, and this has coincided with a downward occupational shift in terms of pay and status. Perhaps this was her choice, but it also potentially reflects the lack of

[1] For details on the calculation of this imputed wage, see Chapter 4.

opportunities available to women in this position at this time, and the lack of government support for them. In her current role she works 19 hours per week and earns £51, which amounts to just 15% of the household income. Despite this, she returned to employment when her youngest child was only seven months old. This suggests that, although her job is low status and low paid, and her contribution to household income is very small, her role as an earner is financially important, symbolically important, or both.

It is a similar story in the 'one-and-a-half' couples in the younger cohort. Karen and Margaret (both BCS, part-time) both have higher status jobs than their husbands and similar levels of qualification. In particular, Margaret works 21 hours per week and contributes a third of the household income, suggesting that her hourly rate is similar to her husband's; yet the resulting division of labour has defaulted to the gender norm of male breadwinner, female carer. She took a year out of the labour market after her first child was born before re-entering part time, thus establishing her as main carer and secondary earner, and making it rational to continue along this path. She is also a practising Christian with very traditional family attitudes, suggesting that she perhaps prefers the main carer role. However nor does she appear to aspire to a full-time homemaker role, as she is highly work orientated, and did not quit her job when her second child was born. By 2002 she would have had the benefit of a more generous system of maternity leave than her NCDS counterparts. Perhaps this is why, unlike NCDS mother Carol, she has been able to maintain an intermediate level job and has never had to downshift. This has also allowed her to make a larger contribution to the overall household income than Carol or Susan.

Even in couples in which both partners work full-time, gendered patterns can be seen in the way that roles are assigned, identities constructed, and work and care divided. Sandy (NCDS, full-time) works 48 hours per week as a radio operator, a profession that is not male dominated but does have a roughly equal split between men and women according to the occupational segregation variable here[2]. She has some managerial responsibilities, and this combined with her long hours mean that her work commitments are considerable. This suggests that she is strongly work orientated, and she does indeed score highly on this variable. This is a value that may have been transmitted from her own mother, who had worked when Sandy was young, including before she started school. Sandy and her husband divide the unpaid household work between them, but still along fairly gendered lines; both clean and care for children, but she does laundry and cooking and her husband does the DIY. Her strong commitment to work and almost equal financial contribution to the household mean that she does not seem to construct

[2]The derivation of this variable is further explained in Chapter 8

herself as secondary earner, but the gendered household task division suggests she perhaps 'does' femininity in this way. Furthermore, the fact that she has a higher status job than her husband suggests she might want to correct for this role dissonance with more feminine tasks.

By contrast, Angela (NCDS, full-time) does seem to to have assumed the second earner role, despite the fact that she too earns almost as much as her husband. Despite working full-time, she does almost all of the unpaid household work, including most of the childcare. Thus the couple seem to distinguish qualitatively between their roles, even though the quantitative distinction between her and her husband's work behaviour is small. There is a disparity in job status within the couple, which could explain the differing importance they attach to their work roles. Angela's husband has a Higher Professional (NS-SEC 1) job, with considerable managerial responsibilities, while she works in an Intermediate (NS-SEC 3) occupation. One interpretation of this would be that Angela chose to take a less demanding job in order to reconcile work with her care responsibilities. However, she had in fact aspired to a professional job when she was at school, but despite her continuous work history and strong work orientation, she never achieved this. Her husband was the one who did, even though he left school at the same age as she did. Thus this status disparity illustrates the potential impact of gendered norms, labour market rigidity and childbearing on a mother's career, especially in the absence of any state support to help her reconcile work and childbearing. This initial disadvantage then feeds on itself, and it is difficult to reassert egalitarianism.

Nicola's (BCS, full-time) situation is positively counter-intuitive. She earns more than her husband, in a higher status job, but despite this she does most of the unpaid household work. She seems to be the principal carer in the household. Although general child care is split equally, ultimately it is she who assumes the responsibility for taking care of the children when they are ill. Interestingly, she also says that she receives the child tax credits, not her partner. As these go to whoever the couple designates the main carer, it would seem that she has taken on this role. Thus in this couple, the norm-challenging economic status is not reflected in a similarly norm-challenging household division of labour. This fits with previous work that suggests that fathers do not take on principal carer roles when their partners earn more than them (e.g Kitterod and Petersen 2006; Kalenoski et al 2009).

As explained in Chapter 4, these case studies were not chosen because they are particularly congruent with the theoretical positions outlined in this thesis; they were chosen randomly from the families in the dataset that are average in terms of size and income

and have complete data. However, they clearly illustrate the complex interplay between resources, conversion factors and outcomes that the theoretical framework has tried to conceptualise. It is from this framework that the next section will derive hypotheses for the subsequent empirical work.

6.2.3 Hypotheses

The empirical analysis attempts to explain differences in the division of labour between the two cohorts. Empirically, these differences should be attributable to three key explanatory factors; human capital disparities, contextual factors and preferences. Firstly, the division of paid work and care should be significantly associated with absolute and relative human capital, as represented by the education and employment variables that exist in the datasets. The impact of absolute levels of human capital is unclear; it increases the options available, but what is finally chosen depends on conversion factors and preferences. As far as relative human capital is concerned, the theory suggests that smaller human capital disparities should result in more egalitarian outcomes. Therefore:

H1: Higher relative human capital of women has a positive impact on the probability of sharing childcare.

Secondly, the policy and other contextual factors within which the household exists should be significantly associated with outcomes. This effect is encapsulated in a variable indicating the cohort to which a couple belongs. This variable should be significant even after controlling for human capital; in other words, two couples with identical human capital in different cohorts should have different outcomes because of the effect of policy and other contextual factors. As discussed above, the impact of this environment is ambiguous, but on balance expected to be mildly positive. The younger cohort should have more options open to them in the reconciliation of work and care, thanks to greater policy support and a less adverse normative climate. Assuming that on average preferences have not become less favourable to the sharing of childcare, this should result in more sharing of care. Therefore:

H2: Being in the younger cohort will has a positive impact on the probability of sharing childcare.

Finally, there should be a significant association between outcomes and attitudes towards family and work, as expressed by the variables that elicit the respondent's own views on these matters, which may differ from macro-level attitudes. Again these are expected to be significant even controlling for the other things in the model, as they capture individual heterogeneity within a societal context of particular incentives and barriers. Therefore:

H3: Positive attitudes towards maternal employment and strong work orientations have a positive impact on the probability of sharing childcare.

The rest of the chapter will first of all examine these issues descriptively, and then more rigorously with a regression model.

6.3 Descriptive analysis

This section will examine some of the key variables in the dataset around labour force participation and remuneration, and the division of labour in the household. It first of all seeks to answer the first set of questions posed at the beginning of the chapter around the distribution of human capital and earning power within the household in the two cohorts. It examines the relative human capital, labour force attachment and labour market status within couples, and how this differs by cohort. It also compares the financial contribution that each partner is bringing to the household, and whether the gender gap in this respect is smaller in the younger cohort. It then examines what the data can tell us about the division of work and care on a descriptive level, and how this differs between the two cohorts.

The analysis here only uses the cases for whom the issue of the intra-household distribution of work and care is relevant. The cases included are those respondents that are in a household containing only an opposite-sex partner and their biological, adopted fostered or step children up to the age of 18. Wherever the term 'family' or 'household' is used in this analysis, it is to this type of household that these terms refer. There are 12,209 such cases in the dataset, representing 62% of the older cohort and 54% of the younger cohort. The remaining 8,828 cases are dropped because they are single parent households, childless households, or contain additional residents such as extended family.

In this chapter, the 'male household member' is either a male cohort member, or the

Table 6.1: Relative education level within the household, by cohort

Relative education	Cohort			N
	NCDS	BCS	Total	
	%	%	%	
Man higher	24.6	20.8	22.9	2,510
Same	42.3	46.0	44.0	4,826
Woman higher	33.1	33.2	33.1	3,637
Total	100.0	100.0	100.0	10,973

male partner of a female cohort member, and the 'female household member' is either a female cohort member of the female partner of a male cohort member. No distinction is made in the analysis between data on cohort members and data on their partners; they are all either the mother or the father for the purposes of the model here. The drawback of this method is that the analysis loses a lot of the variables pertaining to human capital, because the information on partner's human capital is much more limited than that of the cohort member. However, this approach allows the construction of relative human capital measures, which are in any case the most central to these research questions, on what is effectively twice the sample size of the original cohort.[3]

6.3.1 Relative human capital

The first human capital dimension of interest is educational level, as this is strongly associated with earnings or potential earnings. Unfortunately, it is difficult to compare educational level between partners due to the lack of information about the cohort member's partner on this subject. The respondent is asked only at what age their partner left full-time education, therefore this is what will be compared between partners. Analysis of the cohort members, on whom there is more information, suggests that it is in any case a reasonable proxy for qualification; table A.2 in Appendix A shows a clear clustering of particular qualifications at each age, and a gamma value of .72, which is high and suggests a strong association.

Table 6.1 shows that households in the younger cohort are less likely to have a more educated male partner, and it is concomitantly more likely that they are educated to

[3]One additional point to bear in mind is that, in treating information on the cohort members and their partners as equivalent, this does not not take account of the fact that the latter are subject to greater error because the information is solicited from someone else. Therefore the precision of the estimates may be artificially inflated to some extent, leading to potentially false conclusions of significance.

Table 6.2: Household division of paid work, by cohort

Household division of paid work	Cohort			N
	NCDS	BCS	Total	
	%	%	%	
Both full-time	17.8	22.9	19.9	2,355
Man full-time, woman part-time	38.3	41.1	39.5	4,661
Man full-time, woman home	33.7	26.8	30.8	3,636
Other	10.2	9.2	9.8	1,153
Total	100.0	100.0	100.0	11,805

the same level. While this does represent a shift to women's advantage, it should be noted that they had the upper hand even in 1991; a household of this type is more likely in both cohorts to have a more educated woman. However, this measure of education does not take into account vocational qualifications or on the job training, which are other important forms of human capital investment (Becker 1964;1975). If there are gender differences in these types of human capital, then gender disparities in formal qualifications will not capture true disparities in labour market value.

6.3.2 Relative attachment and status

Relative labour market outcomes are the second aspect of human capital that needs to be considered. Aggregate level trends in mothers' labour force participation cannot tell us how this has affected the division of paid work at the household level; whether working mothers are in relationships with working fathers, or with non-working fathers. The data used here contain information on how couples divide paid work, and about the relative status of their jobs if they work, as couples are interviewed about the employment status of their partner as well as themselves. Unfortunately there is no information on the actual weekly working hours of the respondents' partners, so a proper comparison of their relative paid work commitments is not possible. Partner's economic status is given in categorical form, which for ease of analysis here is collapsed into whether they work full-time or part-time, or are unemployed, sick, in education or inactive for family reasons. A full cross-tabulation of the intra-household relative division of labour is given in table A.3 in Appendix A. However, for further brevity, table 6.2 presented here collapses this into four combinations, as the numbers in any other configuration are so small.

Most couples – 90% in the NCDS and 91% in the BCS – fall into one of three categories

of the division of paid work. The most common outcome in both cohorts is the 'one-and-a-half' arrangement; father working full-time, mother working part-time. Couples in the older cohort are more likely than those in the younger cohort to have a 'male breadwinner' arrangement of father working full-time and mother at home, although this is still more common than both partners working full-time even in the younger cohort. Anything outside of these three norms is still very unusual; even the younger cohort contains just 25 female-breadwinner households out of a sample of 4923; i.e. around half of one percent of this sample.

Job status

It is also relevant for understanding differences in remuneration to look at job status; even if both parents work-full time, one may do so in a much less prestigious occupation than the other, which is likely to imply a pay differential. Switching to part-time work may also imply a downward shift in status for mothers, and this may be important given the large proportion of mothers who work full-time. The link between hours worked and job status is explored much more fully in Chapter 8; here basic intra-household job status differentials are simply established by cohort. Status is established here using NS-SEC, the meaning, derivation and rationale for the use of this variable as an indicator of status is explained in Chapter 4.

Table 6.3 illustrates the status disparities within couples where both partners are in work (full-time or part-time). The diagonal in each panel represents couples in the same job status, while cells to the right of this are households with women in higher status jobs, and to the left are those with men in higher status jobs. Perhaps the most striking thing about this table is the gender balance, even in the older cohort. Around half of couples in both cohorts have jobs of the same status, with the remaining half split fairly evenly between women and men being in higher status jobs. If there has been any change, it is that the proportion of households in which men hold a higher status jobs is actually higher in the younger cohort; 27.4% compared with 24.8% in the NCDS. Thus it would seem that dual-earning couples are quite evenly matched, at least on this fairly crude three-category measure, which conceals much within-category variation in pay and prestige.

Related to the issue of status, there is a possibility that stronger labour force attachment gives women the experience they need to achieve more senior positions. The methodology chapter outlined some of the issues with the variable representing managerial

Table 6.3: Relative job status in dual-earner couples by cohort

	NS-SEC of female household member				
	Managerial and professional	**Intermediate**	**Routine and manual**	**Total**	**N**
	%	%	%	%	
NS-SEC of male household member, NCDS					
Managerial and professional	13.1	11.1	9.9	34.1	1,261
Intermediate	4.6	6.4	7.5	18.5	685
Routine and manual	8.2	12.0	27.1	47.4	1,751
Total	25.9	29.6	44.5	100.0	3,697
NS-SEC of male household member, BCS					
Managerial and professional	24.1	12.3	9.1	45.5	1,395
Intermediate	6.6	6.4	5.2	18.2	557
Routine and manual	10.8	10.0	15.5	36.3	1,113
Total	41.4	28.8	29.8	100.0	3,065

Table 6.4: Relative managerial responsibilities in dual-earner couples by cohort

Managerial responsibilities	Cohort			N
	NCDS	BCS	Total	
	%	%	%	
Both	19.8	19.1	19.5	1,156
Man only	35.3	29.7	33.1	1,961
Woman only	12.3	15.5	13.6	806
Neither	32.6	35.7	33.8	2,007
Total	100.0	100.0	100.0	5,930

responsibilities, particularly around its comparability between the two cohorts. However, bearing this in mind, the relative managerial status within households (table 6.4) suggests that men are considerably more likely to report managerial responsibilities in both cohorts. This is what might be expected given the discussion above on the way in which couples define and prioritise the paid work they do, and the priority that is awarded to men's careers, for normative and practical reasons. Encouragingly, the gender gap is smaller in the younger cohort, and a higher proportion of households report only the woman having managerial responsibilities.

6.3.3 Relative financial contribution

The third aspect of intra-household inequality is financial contribution. Although the gender pay gap has narrowed, it is interesting from a relative resources perspective to see how this has been reflected in gaps at the intra-household level. Studies of gender pay gaps usually focus on hourly pay, which controls for hours worked, but this analysis will look at weekly net pay because there is no data on the hours worked by the respondent's partner, thus relative hourly wages cannot be calculated. However, what is interesting about weekly income is that it illuminates the de facto financial disparities within the household. Even if a couple's potential hourly wage is the same, if a mother works fewer hours, her relative financial contribution to the household will be lower, and thus her bargaining position weaker (Amilon 2007; Evertsson and Nermo 2007; Datta Gupta and Stratton 2010).

The aggregate picture in the two cohorts reflects a general upward trend in income among both men and women; as with the status variable analysed above, there has been a general increase in net income over the period and increases in mothers' income

Table 6.5: Median weekly net pay of employees, by sex and cohort

Sex	Median		N
	Median net pay, NCDS	Median net pay, BCS	N
Male	230.8	264.0	5,595
Female	78.5	114.4	6,614
Total	170.0	196.8	12,209

Figures are in 1991 prices for comparability

Table 6.6: Mothers' mean % contribution to household earnings and total household income by household earning type and cohort

Household division of paid work	Mean				N
	Earnings, NCDS	Income, NCDS	Earnings, BCS	Income, BCS	N
Both full-time	40.5	42.6	44.3	46.6	2,355
Man full-time, woman part-time	21.6	25.7	26.9	31.3	4,661
Man full-time, woman home		7.2		11.5	3,636
Other	46.5	38.7	58.7	49.5	1,153
Total	27.9	23.6	33.6	30.7	11,805

needs to be considered in this context. However, women's earnings have increased more, suggesting some closing of the gap (table 6.5).

More relevant for the analysis here is whether this catching up is reflected in intra-household disparities. Table 6.6 shows the relative contribution that women make in each of the three main types of household. Mothers who work full-time have comparable earnings to their partners in both cohorts, but there is still a gap; this has narrowed a little from 9% in the older cohort to 6% in the younger cohort. However, as with the aggregate gender pay gap, a stubborn motherhood gap remains. A gap is to be expected for mothers who work part-time, although it is narrower in the younger cohort; mothers who work part time in the younger cohort contribute 27% of household earnings, as opposed to 22% in the older cohort. This may reflect the trends outlined above towards better part-time jobs and wages.

Table 6.6 also shows mothers' contribution if we take into account income from non-wage sources, including state benefits, thus reflecting mothers' true financial contribution to the household's total income. Mothers are more likely to receive income from other non-state sources such as rent or maintenance payments, but the median amount received is

higher for men in both cohorts. However such sources are relatively rare for both men and women, therefore their effect on overall trends is likely to be negligible.

What is perhaps of more interest, from the perspective of the research questions addressed here, is non-wage income that comes from the state. In couple families with children, women are far more likely to receive some kind of state benefit; over 90% in both cohorts, compared with 29% of NCDS men and 39% of BCS men. In both policy eras, women have been the primary recipients of family-related benefits, and as the policy chapter outlined, the level of this support has been increased, and the conditions expanded to incorporate the majority of families. Therefore it might be expected that in both cohorts the inclusion of other income sources would raise women's relative share of total household income, but that in the younger cohort it might do so more.

Table 6.6 shows that, for women who work full-time, the difference between their earnings contribution and their total income contribution is very small. This is perhaps because dual-earning families tend to be better off, and are thus entitled to a smaller amount of support, therefore its overall impact is small. State support has a larger impact on the contribution of women who work part-time, but the biggest difference is for women who do not work. Their share of household income increases from nothing to 11.5% in the younger cohort when other income is taken into account. Although this is not a large amount, it is not the same as contributing nothing at all to the household finances, and is therefore relevant from a relative resources perspective. This share is larger for stay at home mothers in the younger cohort, reflecting perhaps the greater generosity of the state support to families available to them, and illustrating the impact that policy can have on the intra-household distribution of resources.

Therefore the answers to the first three questions posed at the beginning of this chapter are now apparent. As far as the first question is concerned, it is hard to say anything about the size of intra-household human capital disparities from this data, given the lack of information on partner's education and employment history. However men's key advantage appears to be not in education but in employment experience. The second question asked about gender disparities in employment status. The data showed that households in the younger cohort were more likely to have two earners, and that women have caught up to some extent in status and responsibility. Finally the third question asked about the relative size of mothers' economic contribution in the two cohorts. This contribution is proportionally larger in the younger cohort, both as a result of higher relative wages and more generous state support to families. These insights will be taken forward in the remainder of this chapter in the investigation of the fourth and fifth

Table 6.7: Division of childcare tasks by cohort

	Cohort			
	NCDS	**BCS**	**Total**	**N**
	%	%	%	
Who looks after children in general?				
Woman mostly	50.6	54.8	52.5	6,177
Equal	48.3	43.1	46.0	5,421
Man mostly	0.8	1.8	1.2	145
Someone else	0.2	0.4	0.3	30
Total	100.0	100.0	100.0	11,773
Who looks after children when ill?				
Woman mostly	66.6	57.8	62.8	7,383
Equal	32.3	40.4	35.8	4,216
Man mostly	0.9	1.5	1.2	138
Someone else	0.2	0.3	0.2	27
Total	100.0	100.0	100.0	11,764
Who teaches children good behaviour?				
Woman mostly	14.4	11.8	13.3	1,564
Equal	82.6	86.3	84.2	9,900
Man mostly	2.8	1.8	2.4	280
Someone else	0.1	0.0	0.1	8
Total	100.0	100.0	100.0	11,752

questions about the division of care and its determinants. In light of this mostly positive shift in favour of mothers within the household, we might expect the division of care to be less gendered in this cohort as well.

6.3.4 Division of unpaid work

The final task of this descriptive section is to establish what the data tells us about the division of childcare and other unpaid household work. Respondents are asked about the division of three childcare tasks, the results of which are shown in table 6.7. The general picture is that most couples in both cohorts either share these tasks or the mother does them; the proportion of men taking primary responsibility for any of them is very low. The most equally shared task is discipline, perhaps because it is not as incompatible with a father's role as other childcare tasks.

Couples in the younger cohort are less likely to report equal sharing of the general childcare. This is perhaps surprising given what was established above about their increased employment participation and earning contribution. It could be a compositional effect;

men are more likely to report equal sharing, and there are proportionally more men in the older cohort. However, in fact only a small part of the effect is due to composition; if the older cohort had an identical sex ratio to the younger cohort, the proportion reporting equal sharing would be 47.5%. This is still higher than the 43.1% in the younger cohort. The difference seems to be driven principally by the difference between the women in the two cohorts, for whom there is a seven percentage point difference in the reporting of equal sharing.

There is another possible demographic explanation for the effect. The age of childbearing has been steadily increasing in the UK, which means that the younger cohort on average have started childbearing later, and therefore have younger children than their counterparts in the older cohort at the same stage in life. Having younger children makes a mother more likely to be the primary carer in both cohorts. However, if we break down the division of care by number of children under five (table A.4 in Appendix A), women in the younger cohort are less likely to report equal sharing regardless of whether they have young children in the household or not.

Therefore it would appear that, as far as the division of general childcare is concerned, the younger cohort are less egalitarian. On the other hand, women in the younger cohort are less likely to take primary responsibility for looking after a sick child. This is important because if one parent is always the one to take time off when a child is sick, they will face labour market penalties that their partner does not. If this partner is usually the woman then this will manifest itself in gender inequality at the aggregate level. Therefore a more equal division of this responsibility is positive from a gender equality point of view.

The division of care in the household might sensibly be thought of as jointly determined alongside the division of paid work; for example the decision to be a stay at home mother logically entails taking primary responsibility for childcare in most cases. However, what is striking about the results presented so far is that, on this logic, because more women in the younger cohort are in employment, we might expect fewer of them to report taking primary responsibility for childcare, but this does not seem to be the case. Table 6.8 shows the division of general childcare broken down by cohort and the division of paid work.

Households in which both parents work full-time but the mother takes primary responsibility for childcare are just as likely in the younger cohort. Therefore although mothers in the younger cohort are working more, this has not involved a concomitant shift of

Table 6.8: Division of general childcare, by household earning type and cohort

	Who looks after children in general?					
	Woman mostly	Equal	Man mostly	Someone else	Total	N
	%	%	%	%	%	
Division of paid work, NCDS						
Both full-time	29.6	68.3	1.4	0.7	100.0	1,142
Man full-time, woman part-time	47.2	52.4	0.4	0.0	100.0	2,527
Man full-time, woman home	69.3	30.6	0.1	0.0	100.0	2,205
Other	37.9	58.2	3.6	0.3	100.0	644
Total	50.7	48.4	0.8	0.2	100.0	6,518
Division of paid work, BCS						
Both full-time	30.6	66.3	1.7	1.4	100.0	1,105
Man full-time, woman part-time	57.7	41.8	0.4	0.0	100.0	2,012
Man full-time, woman home	78.7	20.9	0.4	0.0	100.0	1,311
Other	31.1	57.3	11.3	0.2	100.0	450
Total	54.8	43.2	1.7	0.3	100.0	4,878

care responsibilities towards fathers. Among couples who choose to reduce the mothers' working hours, there is a more extreme picture of specialisation in the younger cohort. In the older cohort, 52% of respondents report equal sharing of care even when the mother works part-time, whereas in the younger cohort only 42% do. For a father to share responsibility for childcare even when he works more hours suggests some commitment to equal parenting regardless of who earns the money. However, this seems to be less common in the younger cohort, who are more likely to choose an arrangement of role specialisation, with the father specialising in earning and the mother specialising in caring.

This apparent trend away from egalitarianism in the division of childcare is contrary to trends in the division of other household tasks. Table 6.9 shows that men are more likely to be sharing or performing the majority of some traditionally feminine household tasks such as cooking and cleaning, although this should be seen in the context of women still being primarily responsible for these tasks in two thirds of households.

The gender division of tasks remains fairly stark, with cooking and cleaning female dominated and DIY male dominated in both cohorts, suggesting a weakening but persistent association of certain household tasks with male and female roles. There is a slight increase in contracting out the tasks that can be contracted out; cleaning and DIY are more likely to be performed primarily by someone outside of the couple. However, it is still highly unusual for someone else to do the cooking, suggesting that there are limits to the

Table 6.9: Division of selected housework tasks by household earning type and cohort

	Cohort			
	NCDS	**BCS**	**Total**	**N**
	%	%	%	
Who does the cooking?				
Woman mostly	79.8	65.2	73.5	8,679
Equal	15.0	24.5	19.2	2,265
Man mostly	4.9	10.1	7.2	845
Someone else	0.3	0.2	0.2	27
Total	100.0	100.0	100.0	11,816
Who does the cleaning?				
Woman mostly	79.0	67.8	74.2	8,761
Equal	17.4	25.0	20.7	2,443
Man mostly	1.2	3.1	2.1	244
Someone else	2.3	4.1	3.1	365
Total	100.0	100.0	100.0	11,813
Who does the DIY?				
Woman mostly	4.8	6.2	5.4	634
Equal	21.9	20.9	21.5	2,535
Man mostly	69.1	66.8	68.1	8,036
Someone else	4.2	6.2	5.1	597
Total	100.0	100.0	100.0	11,802

extent to which a couple can or feel able to contract out their domestic responsibilities, or that much contracting out is not noticed, for example ready cooked meals.

This section has considered separately a number of potential influences on the division of childcare in the household. However, in order to understand the extent to which these factors are influencing the division of care, they need to be controlled for simultaneously. This is what the regression model in the next section will do.

6.4 Regression model

6.4.1 Variables

The dependent variable in the regression model is a binary variable that takes the value zero if childcare is performed mostly by the mother, and 1 if is is shared, performed mostly by the father or outsourced. Thus the model is predicting what makes it more likely that childcare responsibilities are not performed mostly by the mother. For short-

hand this will be referred to here as 'shared', as this is by far the biggest proportion of this category, even though it encompasses two other options as well.

The explanatory variables in the model relate to the elements of the theoretical framework set out above. Resources are represented by relative human capital and resource variables, conversion factors by a variable indicating the cohort to which the household belongs, and preferences by attitudinal variables. The selection of explanatory variables is limited throughout by the need to choose data that is available on both the cohort study respondent and their partner, in order to understand the relative position of the mother and father within the household. Information on the partner is present but quite limited; it is a small fraction of the rich data available on the cohort member themselves. Much of the richness of the human capital data is lost as a result; the next chapter attempts to use more of it, although it loses the intra-household perspective from this chapter.

The explanatory variables are grouped in blocks representing their theoretical link, in order to test the joint significance and explanatory power of the key theoretical elements as well as the significance of the individual variables themselves. The first block is simply the division of paid work in the household. It is clear from the descriptive analysis that this variable is strongly related to the division of care, but also that the association is far from perfect. The division of work and care are likely to be jointly determined to some extent, but not completely; there are couples in which the father works more but still takes joint responsibility for childcare. The endogeneity of this division of work variable means that its coefficients need to be interpreted with caution, but its inclusion is essential, and enables us to say what the effect of the other variables is, controlling for earning arrangement.

The second block of variables represents the absolute and relative human capital resources in the household. The model tries to incorporate as much information as is available on both household members around their schooling, experience and earnings, although it is limited. The only indication of partner's educational qualifications is the age at which they left full-time education, so this lowest common denominator is what is compared within the couple. Relative experience and labour market history, although key determinants of present division of labour, cannot be included. Although there is considerable employment history data available on the cohort members themselves, there is none for partners in the younger cohort.[4]

[4]It might be possible to go to previous sweeps for this information, but this is not only time consuming, it also loses the case if the current partner has not been present at previous sweeps.

The measure of earnings used here is an imputed wage variable. The full construction of this variable is described in Chapter 4, but in brief it is a variable that uses as much human capital information as possible to create a value for wage using regression-based imputation, where no actual wage data is available. This means that those in work whose wage data is missing can still be included in the model. It also means that those not currently in work can be included, using whatever information is available but without having to exclude them because there is no information on their job status. Therefore what this variable is measuring is not the de facto level and division of the household finances, but the potential contribution each partner could make. It reflects the options available to a couple, which is what the absolute level of human capital in the household is assumed in this framework to give them. The block also includes a relative measure of potential wage, as the size of the mother's potential economic contribution relative to her partner's indicates her power within the household to negotiate her most preferred outcome.

Block three encompasses two other potential resource disparities in the household that might affect relative bargaining power. The first is whether the rental agreement or, in most cases, the mortgage for the household is in the mother's name or not. This is assumed to give the mother some security, and therefore a more powerful position from which to negotiate. The second is the financial contribution each partner makes to the household from sources other than wages; even if a person is not in employment, they may still be contributing to the household finances, through private sources of income such as rent or investments, or from state benefits. This income is assumed to endow power in a similar way to wages.

If blocks two and three represent the potential options that absolute and relative resources endow, block four represents the conversion factors that affect, for a given level of human capital, the options that are realistically available. This is represented by a variable indicating the cohort to which the household belongs, which is assumed to encapsulate the impact of the prevailing policy and other factors that have a practical and normative impact on household outcomes. It is this block that is of most interest, as it holds the key to the central question of the research; the impact of policy on the division of paid work and care.

Block five represents the final stage in the process sketched out in the theoretical framework; the selection of one outcome from a capability set of options, according to individual preferences. This block is the weakest for two reasons. Firstly, as outlined in Chapter 4, the attitudinal data has had to be picked up from different sweeps, and therefore does

not necessarily represent the cohort member's opinion at the relevant age, or reflect the way that preferences change in response to experience. Secondly, there is unfortunately no attitudinal data available for the cohort member's partner. Unlike the potential wage variable, the attitude variable cannot simply be imputed from other variables; indeed, a key premise of the framework is that this stage is not related to human capital or other factors, but is something intrinsic and person specific. Therefore the attitudinal variable is one-sided, and is used on the strong assumption that the cohort member's attitudes are similar to their partner's. Some attempt is made to correct for the gender bias that this variable will have as a result of only using data from the cohort member. As male and female respondents have systematically different attitude scores – men are less liberal and more work orientated – the distribution of attitudes in the sample will reflect the gender distribution of the cohort members. This is removed by adding the average score for the opposite gender and dividing by two to get an average household attitude score.

A final block of two variables controls for the size of the childcare burden, which will inevitably affect how it is divided; a couple with two children under five clearly face a very different set of costs and constraints to a couple with a single secondary school-aged child. One variable in this block indicates the number of children in the household, and a second indicates the number of children under five.

Table 6.10 shows the distribution of these variables between the two categories of the dependent variable. The table shows that equal sharing is most likely among dual-full-time couples, but it is by no means guaranteed. Furthermore, nearly half of all 'one-and-a-half' couples report equal sharing, despite the disparity in working hours. Therefore the division of work, although closely related to the division of care, does not perfectly determine it. Education seems to have little impact, but income seems to have more of an effect; average male weekly income is higher in couples where the woman does most of the childcare, and average female income is higher in couples that share childcare. Although the numerical values on the attitude scores are not in themselves very meaningful, the lower average score on attitudes towards working mothers indicates a more favourable position in couples who share childcare equally. The other two attitude variables – general attitudes towards family-related morality, and work orientation – do not seem to vary between the two categories of the dependent. There are slightly more children in households where the woman does most childcare, although the difference is small. More noticeable is the higher average number of children under five in households where the woman does the majority of the childcare.

Table 6.10: Distribution of the explanatory variables between the two categories of the dependent

	Who looks after the children in general?			
	Woman mostly	**Not woman mostly**	**Total**	**N**
Household division of paid work				
Both full-time (%)	30.08	69.92	100.00	2,247
Man full-time, woman part-time (%)	51.86	48.14	100.00	4,539
Man full-time, woman home (%)	72.78	27.22	100.00	3,516
Other (%)	35.10	64.90	100.00	1,094
Total	52.41	47.59	100.00	11,396
Relative education in household				
Man higher (%)	53.44	46.56	100.00	2,429
Same (%)	52.30	47.70	100.00	4,681
Woman higher (%)	52.17	47.83	100.00	3,550
Total	52.51	47.49	100.00	10,660
Cohort				
NCDS (%)	50.65	49.35	100.00	6,648
BCS (%)	54.83	45.17	100.00	5,125
Total	52.47	47.53	100.00	11,773
Total household income (£p.w.)	424.08	377.68	400.19	11,937
% household income female	79.34	83.66	81.42	11,937
% accommodation in mother's name	92	93	92	12,079
Male weekly nonwage income (£p.w.)	14.13	20.13	16.94	11,681
Female weekly nonwage income (£p.w.)	35.62	37.51	36.06	11,186
Attitude to maternal employment	0.10	-0.06	0.02	10,282
Attitude to family morality	0.06	0.05	0.06	10,282
Work orientation	0.03	0.03	0.03	10,282
Number of children	2.02	1.95	1.99	12,209
Number of children under 5	0.94	0.66	0.80	12,209

Tests of multicollinearity (table A.5 in Appendix A) showed acceptable tolerance statistics; Menard (1995) suggests that a value of less than 0.2 is problematic, but in this case all of the tolerance statistics exceeded 0.8. Thus it would seem that multicollinearity is not a serious problem in the model, and all the variables can be included.

6.4.2 Model results

Table 6.11: Regression results: predicting the division of childcare

Variable	Childcare is equally shared	
	Odds Ratio	*p*-value
Household earning type		
Both full-time	ref	-
Father full-time, mother part-time	0.477***	(0.000)
Father full-time, mother at home	0.215***	(0.000)
Other	0.752**	(0.006)
Relative education		
Man higher	ref	-
Same	0.906	(0.106)
Woman higher	0.837**	(0.006)
Total household income	0.880***	(0.000)
Percent female in household income	1.015***	(0.000)
Accommodation in mother's name	1.220*	(0.036)
Male non-wage income	1.001**	(0.003)
Female non-wage income	1.000	(0.815)
Younger cohort	0.699***	(0.000)
Attitudes to maternal employment	0.647***	(0.000)
Attitudes to family morality	1.061	(0.210)
Attitudes to work	0.976	(0.617)
Number of dependent children in HH	1.062*	(0.045)
Number of children 0-4 (if ch in HH)	0.703***	(0.000)
N	8575	
LL	-5311.4	
Pseudo-R^2	0.105	
Hosmer-Lemeshow G.O.F. (*p*-value)	0.226	
% correctly classified	66.3%	

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A logistic regression model was run using the above dependent and explanatory variables.[5] The results indicating the overall quality of the model are mixed. On the positive side, all the blocks of variables were found to be significant (table A.6 in Appendix A), suggesting that the elements of the model are all relevant aspects of the division of paid work and care. A Hosmer-Lemeshow test of model fit gives an insignificant result (table 6.11), suggesting that the model is an acceptable fit for the data. However, the pseudo R-squared is low at .105, suggesting that the explanatory variables explain a low proportion of the variance in the dependent variable. Therefore although the results do not contradict the theoretical model, they do suggest it lacks explanatory power.

Table 6.11 also presents the coefficient estimates and accompanying *p*-values for the model. The descriptive statistics suggested a close but imperfect association between the division of care and the division of paid work. The division of work was indeed found to be significant, although even with its inclusion, the pseudo R-square remains low, confirming that the correlation is far from perfect. As expected, equal sharing less likely in couples in which the mother works part-time, with reduces the odds by 52%, and even less likely when she does not work at all, which reduces the odds by 79%. However, this result should be interpreted with caution; due to the high degree of endogeneity between these two variables, it is difficult to draw definite conclusions about the direction of causality.

Relative human capital has the hypothesised effect to some extent. Relative imputed wage has a significant positive impact on the odds of equal sharing. Each unit increase (i.e. an increase in the mother's contribution by 1%) raises the odds of equal sharing by 1.5%. This effect is in line with the major theoretical perspectives that inform the theoretical framework; a more even relative earning power makes equal sharing more rational and gives a woman more power to negotiate for it. However, relative education does not have this hypothesised effect; in fact the results suggest that households with more educated mothers are significantly less likely to split the childcare equally than households with more educated fathers. The result might reflect economic imperatives – perhaps more educated women feel less pressure to return – although it is also worth bearing in mind the weakness of this variable in capturing relative education, due to its vagueness and imprecision. Economic imperative is also perhaps an explanation for the negative impact of absolute potential income on the odds of equal sharing. High income couples are more able to take the option of not both working full-time, therefore more

[5]The form and interpretation of this type of model is described in detail in Chapter 4.

do so; women take long periods out of full-time employment and the path to gendered specialisation is set in motion.

Whether or not the household mortgage or rental agreement is in the mother's name was found to have a significant, positive effect on the odds of equal sharing, lending some support for the theoretical proposition that a woman's bargaining power is augmented by her financial security. However, a mother's nonwage income was not found to have any significant effect. Despite the potential of this source of income to lend some bargaining power to the mother, perhaps the amounts involved are so small that they do not have an impact. Father's nonwage income was found to have a significant, mildly positive effect on the odds of equal sharing; this perhaps reflects the greater probability that unemployed men take on some childcare responsibilities.

The second hypothesis advanced above was that policy and other conversion factors should have an effect on the division of care, and the significant coefficient on the cohort variable suggests that this is the case. That this effect exists even controlling for human capital and family size differences between the two cohorts is consistent with the theoretical proposition that external factors have a significant impact on the costs and opportunities faced by parents. However, the other possibility is that there is a systematic difference between the cohorts in outlook or preference that the attitudinal variables here have not controlled for, and that is captured by the cohort variable. The direction of the effect of cohort is, as suggested by the descriptive statistics, negative; being in the younger cohort reduces the odds of equal sharing by 30%.

Only one of the attitudinal variables included here was found to have a significant impact on the division of work and care. Attitudes to working mothers was found to have the predicted negative impact; the higher the score (i.e. the less favourable towards working mothers), the less likely is equal sharing of childcare. The more general family morality variable does not have a significant impact, and nor does work orientation. Therefore preferences are having the predicted effect to some extent, as attitudes to working motherhood are found to affect the division of work and care, but other things that might be important, such as work orientation, are not.

The variables controlling for the size of the childcare burden were found to be significant, suggesting that this is part of the explanation for the division of work and care, and reinforcing the idea that these arrangements do not represent an end point, but an instantaneous arrangement that makes sense for a given family size and age. The results suggest that each child under 5 decreases the odds of equal sharing by 30%; women

are more likely to be at home at this stage of their children's lives. An additional child actually increases the odds of equal sharing; on the surface this seems contrary to expectations, but perhaps as the overall childcare burden gets larger, an arrangement of only one parent taking primary responsibility becomes increasingly untenable. As the model controls for cohort, the effect here is not simply because women in the younger cohort are both more likely to have fewer and younger children, and more likely not to split care equally.

6.4.3 Cohort effects and interactions

The above model necessarily pools the two cohorts of women in order to obtain a coefficient for the impact of context. However, the results on the other coefficients may be misleading in this pooled model; their magnitude and significance may in fact differ between the two cohorts. A likelihood ratio test of the pooled versus separate models found a statistically significant difference between the coefficients in the models as a whole, therefore the impact of the important factors identified here may not be the same for the two cohorts.

Running the models separately for the two cohorts (table 6.12) shows that for some of the variables, the impact is almost identical for the two cohorts. The impact of relative imputed wage, and of attitudes to working mothers, are of very similar magnitude and significance. However, some differences are also apparent. The effect of total household income is significant in the younger cohort but not the older. This, along with the stronger impact of a child under five in the younger cohort, is perhaps due to the high costs of childcare relative to earnings facing the younger cohort. Less well-off households are forced to take on more of the childcare burden themselves, and are therefore more likely to have to share it, especially if there are economic imperatives on the mother to return to work. The effect of education is significant in the older cohort, but in the younger cohort the effect, although negative, is not found to differ significantly from zero. However this could simply be an artefact of the smaller sample size in the younger cohort, so bearing this in mind, along with the inadequacies of the variable itself, means that this difference is perhaps not so important. Finally, it is interesting to note that the pseudo R-squared value is higher for the younger cohort, suggesting that the underlying theoretical model is more relevant to this cohort.

However, it is not enough to conclude interaction effects between cohort and other variables on the basis of apparent differences between the coefficients. Visual differences do

not necessarily imply statistical significance, therefore the differences need to be tested using interaction variables (Jaccard 2001:17). When this was carried out here, none of the interactions were found to be significant. Therefore the impact of these variables cannot be said to differ by cohort in any non-trivial way; the effects presented in table 6.11 and their implications apply to both cohorts.

Table 6.12: Separate models for the two cohorts

Variable	Childcare is equally shared	
	NCDS Odds Ratio (*p*-value)	BCS Odds Ratio (*p*-value)
Household earning type		
Both full-time	ref	ref
	-	-
Father full-time, mother part-time	0.626***	0.378***
	(0.000)	(0.000)
Father full-time, mother at home	0.280***	0.154***
	(0.000)	(0.000)
Other	0.683**	0.922
	(0.008)	(0.605)
Relative education		
Man higher	ref	ref
	-	-
Same	0.889	0.947
	(0.136)	(0.576)
Woman higher	0.783**	0.930
	(0.003)	(0.483)
Total household income	0.928	0.853***
	(0.123)	(0.000)
Percent female in household income	1.017***	1.013***
	(0.000)	(0.000)
Accommodation in mother's name	1.073	1.443*
	(0.578)	(0.013)
Male nonwage income	1.002*	1.001*
	(0.017)	(0.031)
Female nonwage income	1.000	1.000
	(0.855)	(0.970)
Attitudes to maternal employment	0.656***	0.633***
	(0.000)	(0.000)
Attitudes to family morality	1.109	0.978

	(0.086)	(0.773)
Attitudes to work	0.946	1.011
	(0.377)	(0.888)
Number of dependent children	1.054	1.081
	(0.180)	(0.095)
Number of children under 5	0.707***	0.682***
	(0.000)	(0.000)
N	4808	3767
LL	-3044.2	-2246.1
Pseudo-R^2	0.0865	0.133

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6.5 Discussion

6.5.1 Caveats to the results

There are three key issues to bear in mind when looking at these results. The first is that, throughout the analysis, the results have been presented as factors affecting the division of childcare. However, the dependent variable strictly speaking records the reported division of childcare, which is not the same as the actual division of childcare. The latter would require detailed time-use data, which is not available in the datasets used here, which provide only a subjective valuation. It is possible that women in the younger cohort have systematically different expectations about what constitutes an equal division of childcare. As a result, the same actual division of childcare may be less likely to be reported as such by a mother in the younger cohort. If this systematic bias exists, it casts some doubt on the cohort effect identified here.

The second caveat is a methodological issue that was raised in Chapter 4 but bears repeating here; that differences between the two cohorts suggest, but do not prove, change over time. They provide a direct comparison between two eras, in order to draw conclusions about the impact of their respective eras. However, to extrapolate further linear

change in the same direction is not safe, as there are in effect only two data points from which to do so. The results here should only be generalised beyond these two specific cohorts with extreme caution. There is also the related issue, also discussed in Chapter 4, of inferring policy effects from the cohort variable, which in fact encapsulates a number of external influences, and potentially any systematic differences between the cohorts that are not specifically controlled for here. What the variable does is provide evidence consistent with or contradictory to the effects of policy that have been theorised here.

Finally, the limitations of the model overall should be considered. Although most of the variables included in the statistical model were found to be significant, thus suggesting the utility of the capability framework used here for guiding model building, the proportion of the variation that the model explains is disappointing. Therefore there must be some inadequacies in the design and execution of the model. The possibilities for theoretical error are infinite, but the empirical issues here are more obvious.

The first is the dependent variable in the model. The issue of subjectivity has already been discussed. An additional problem with the variable is its lack of detail. There are many possibilities for the division of work and care, and the restriction of having to describe this in one of four categories obscures much of this heterogeneity. There is no distinction in this variable between a couple who split care almost but not quite equally, and a couple in which the woman does it all; both would be classified as 'woman mostly'. To further reduce this to a binary variable artificially divides families into two types, when there are likely to be some families on the borderline that have more in common with those in a different type than they do with someone in their own. Therefore it may be difficult to explain this dichotomy in terms of the family's characteristics.

The second empirical problem is the impossibility of comprehensive intra-household analysis due to the lack of data available on the cohort member's partner. There is limited information on their human capital attributes, and nothing at all on their attitudes. Perhaps a fuller account of human capital would have improved the model's predictive power, and therefore given more confidence in the underlying theoretical model.

6.5.2 Main conclusions

This chapter set out to say something about continuity and change in the division of household labour, in a context of rising female employment and substantial policy change. The key finding here is that the cohort effect, contrary to expectations, is nega-

tive; the changes that have occurred over the period of interest here have not made the younger cohort more likely to report shared childcare. It was hypothesised that the increased policy support should have provided families with more options regarding the reconciliation of work and care, and hopefully facilitated sharing. However this does not seem to be the case. This is interesting, although not entirely surprising given the ambiguity of the effect of policy discussed above. The results support the side of the argument that says that policy reform has encouraged greater specialisation, and has therefore been regressive from a gender equality point of view. Mothers are encouraged to take long leaves and participate around their care commitments, which entrenches their role as primary carer, and the associated labour market disadvantages that this implies.

As far as the other determinants of the division of care are concerned, the hypothesised effects did broadly manifest themselves in the results. The division of paid work was found to be strongly, but imperfectly, associated with the division of care. Thus despite likely endogeneity in the determination of the division of work and care, these outcomes are not simply two sides of the same coin. The human capital variables were found to have the expected effect for the most part, although the coefficient in education was not in the expected direction. However, although relative potential wage in the household was found to have the expected positive effect on the odds of shared childcare, there is still a counter-intuitive difference between the two cohorts in this respect. Mothers' higher relative financial contribution in the younger cohort does not translate into a more equal division of care in this cohort. In other words, for a given level of relative income, parents in the younger cohort are less likely to share childcare. The analysis here offers little insight into why this should be the case.

It was also found that the sharing of care was more likely among those whose attitudes are more favourable towards maternal employment, in terms of its perceived costs, benefits and impact on the rest of the family. Therefore preference can be said to be playing a role in household outcomes, although the significance of the cohort variable indicates that external constraints are as well. The analysis here cannot determine the extent to which the division of care is down to preference as opposed to constraint. However, the results are consistent with the theoretical case that has been made here for the restrictions that the policy environment places on dividing care in a non-gender specialised way, thus the driving factor is unlikely to be preference alone.

Chapter 7

To work, or not to work? Mothers' labour force participation

This chapter and the next investigate the second question posed at the end of Chapter 3; the extent to which change has occurred in mothers' capabilities regarding labour market participation, and the impact that policy might have had on this. This chapter looks at the influences on the work decision facing mothers – the decision whether to work, and if so whether to do so full or part time – within a context of policy incentives, norms and other environmental factors. The next chapter will consider the implications of these decisions for mothers' labour market outcomes, examining the resulting gap between mothers and other types of worker, and how this has changed.

As with the previous chapter, this one begins with a theoretical discussion of the research question within the capabilities-based theoretical framework developed in Chapter 3. It then presents some descriptive analysis before presenting and discussing the results from logistic regression analysis, and considering their implications for the questions asked and the theories presented.

7.1 Questions and sample

The focus here is on maternal employment rather than the division of paid work in the household because, as the previous chapter established, in nine out of ten married or cohabiting couples with children the father is in full-time employment. The previous

Table 7.1: Employment status of mothers (cohort respondents) and fathers (their partners) in the sample

	Cohort			
	NCDS %	BCS %	Total %	N
Father's employment status				
Full-time work	90.6	91.9	91.1	5,875
Part-time work	1.5	2.5	1.9	125
Unemployed	5.8	1.6	4.0	259
Full-time education	0.6	0.3	0.5	31
Sick	1.1	2.4	1.6	104
Home/family	0.4	1.4	0.8	52
Total	100.0	100.0	100.0	6,446
Mother's employment status				
Full-time work	20.8	25.1	22.7	1,484
Part-time work	41.5	44.7	42.9	2,808
Unemployed	1.4	0.6	1.0	68
Full-time education	0.9	0.9	0.9	57
Sick	0.5	1.7	1.0	65
Home/family	34.9	27.1	31.6	2,066
Total	100.0	100.0	100.0	6,548

chapter considered all couple households with dependent children, using the available data on both partners to compare their relative resources and bargaining strengths. This chapter focuses on a more specific sub-sample of families; couples with dependent children in which the father works full-time, and the mother either works full-time, works part-time, or stays at home to look after the children. Also unlike the previous chapter, the analysis only uses couples in which the female is the main cohort study respondent. It is mothers' employment decisions that are the dependent variable of interest, and only cohort members have the rich data available on their human capital, histories and attitudes that allows a sophisticated model to be tested; the information on the male respondents' partners is too limited.

Fathers who do not work full-time are eliminated because they are so rare, and those not in employment are almost all classified as unemployed or sick, rather than as carers. Table 7.1 shows that the mothers report that their partners work full-time in over 90% of cases. Although this is not an absolute constant, there is very little variation, which makes it difficult to say anything interesting using a methodology that is logically and statistically based on the analysis of variation. It is more fruitful to analyse where the variation does lie, which is in mothers' labour force participation. Furthermore, concep-

utally there seems little to be gained from analysing the division of work and care as if it were a decision made 'from scratch'; as if it could potentially result in either the mother or father working or staying at home, when in reality the probability of a stay at home father is very low. Therefore, all the families in this sample have a father in full-time employment, and where 'mother' is used hereafter, it refers to mothers with partners who work full-time.

In addition to dropping fathers who are not employed full-time, it is theoretically and practically expedient to eliminate mothers who are unemployed, sick or in full-time education. Table 7.1 shows that such mothers constitute a very small percentage of each sample of couple families, and indeed the sub-samples are so small that it would be empirically unsound to make inferences about these groups based on this data. However, to include them in the same category as stay at home mothers would be theoretically unsound, as the category would be virtually meaningless, encompassing a range of situations with very different motivations and consequences. Therefore, the sample includes only families with dependent children that fall into three particular categories; dual-full-time (both parents work full-time), one-and-a-half (father works full-time, mother part-time) and male-breadwinner (father works full-time, mother says at home). There are 5677 such couples in this combined dataset.

Therefore, the outcome of interest is the mother's employment status at the time she was surveyed; is she in employment, and if so whether she works full-time or part-time. In this analysis, these decisions will be represented in this binary fashion, rather than expressing work behaviour as hours worked. This ignores any variation in part time working, which can be anything from a few hours per week to a 'long' part time arrangement that is not far off a full-time position. Nor can it distinguish between full-time workers who adhere strictly to a 30 hour week and those who work much more than this in overtime. However, these discrete choices represent a qualitative distinction between mothers who have chosen to be full-time earners, and those who have chosen not to be full-time earners.

The analysis aims to understand the impact of policy, and other theoretically relevant factors, on these employment decisions. The principal research question at hand is that of the impact of policy, therefore the main research questions centre around a cohort comparison of work behaviour:

1. What is the impact of policy (and other environmental factors) on the probability of being in work?

2. What is the impact of policy (and other environmental factors) on whether a working mother is in full-time or part-time employment?

However, the analysis can also address some secondary questions around other theoretically important correlates of maternal employment:

3. What is the impact of a mother's human capital on her employment behaviour?
4. What is the impact of her partner's human capital and the size of this relative to her own?
5. What is the impact of a mother's attitudes to work and care on her employment behaviour?
6. How does maternal employment vary by number and age of children?
7. Is maternal employment associated with greater sharing of unpaid household tasks?

7.2 Generating hypotheses

This section will develop hypotheses regarding the differences between the cohorts in mothers' labour force participation, based on the capabilities framework, the information presented on policy reform in Chapter 5, and some case study analysis. These hypotheses function as a bridge between the theoretical framework, which is based on the unobservable concept of capabilities, and the empirical work, which is about observable labour market outcomes. This chapter is interested in how the size and nature of this capability set differs between the two cohorts, given the differences in the prevailing policy and socio-economic conditions in which they are making employment decisions, and how this manifests itself in differences in labour market outcomes.

7.2.1 Pull factors, push factors, barriers and capabilities

The literature review identified many factors that make mothers more or less likely to be in employment, both in terms of their own characteristics, and the nature of the opportunities they face and the assistance they receive in reconciling their work and care responsibilities, from their partners and from the state. Rather than simply considering

these factors in terms of whether they make labour force participation more or less likely, an additional distinction is made here between factors that enhance choice and opportunity, and those that do not.

Pull factors make maternal employment more likely by making it more desirable. They make work attractive relative to nonwork, but without diminishing the capability to not work, therefore they are capability-enhancing. The gains from employment depend on human capital, therefore, the more educated a mother is and the more labour market experience she has, the stronger the pull into employment. However, even if two mothers have the same potential wage, and therefore ostensibly the same labour market 'pull', they may not both choose to work. Their evaluation of this gain will depend on personal preferences about money, work, care and the best way to balance these.

If pull factors are the 'carrots' to employment then *Push factors* are the 'sticks'. These are the factors of a couple's situation that make maternal employment more necessary; in effect, they restrict mothers' capability to not work. This is partly a function of her partner's earnings; the higher they are, the weaker the 'push' into employment for mothers. However, the sufficiency of these earnings is also dependent on external factors. If the cost of living makes it difficult to support a family on a single income, or if the tax-benefit system does little to support this way of life, then the push factors pushing mothers into employment will be stronger. They are in effect the other side of the coin to pull factors, and the distinction is crucial because, although their effect is the same, only pull factors are enhancing capabilities, and are therefore desireable from a capabilities perspective.

Some factors may act in the opposite direction, to strongly discourage maternal employment; in effect acting as *barriers* to it. One such barrier is the financial costs of maternal employment, such as the cost of childcare. Mothers are also restricted by the need for flexible working conditions that allow them to balance their often inflexible and unpredictable care responsibilities with working life; they may not find such conditions in every job they are qualified for. Mothers are also restricted by normative sanctions against working motherhood, perceiving a decision to return to work as unusual and socially unacceptable. All such barriers restrict mothers' capabilities. Policy interventions or normative changes that remove such barriers are capability-enhancing.

Inputs and resources

The key resources here are the human capital factors – education and labour market experience – that create employment possibilities and the potential for labour market reward. The more human capital a mother has, the higher the potential remuneration she can get in employment (Mincer 1958, 1974; Becker 1964, 1975), and therefore the stronger she is being pulled towards it. This effect is reinforced by the inverse relationship between a mother's human capital and the extent to which motherhood impacts her labour market opportunities; the most highly skilled women forgo the lowest proportion of their earnings over their lifetime as a result of childbearing (Davies et al 2000). Women in higher status jobs are more likely to have occupational provision for maternity that goes beyond the limited statutory requirements (Smeaton and Marsh 2006), and their higher earnings make it easier for them to afford the necessary childcare to return to work. Paying for childcare, and other domestic services that working mothers have less time to perform if they are not at home, represents a barrier to maternal employment. It is one that women with the most human capital will find easiest to overcome because it consumes proportionally less of their income. Therefore, the more human capital a mother has, the better her capabilities will be with regard to her labour market opportunities.

However, there is a distinction to be made between mothers' own resources, which are capability-enhancing, and her partner's, which may be enhancing or diminishing. The impact of partner's human capital is more ambiguous. It is capability enhancing at the household level; the more he earns, the more options the household has with regard to how much the mother works. The higher his income, the less the mother has to work in order to meet the family's financial needs; equally, the higher the household income, the easier it is for the couple to buy care and other domestic services. Therefore, a wealthier couple potentially have a much greater capability set. However, a woman's resources relative to her partner's affects her capabilities to negotiate for her own most preferred outcome. Therefore, it is important to recognise analytically the distinction between mother's own human capital, total absolute household capital, and relative capital, as these forces may not be working in the same direction.

Chapter 5 outlined the increase in maternal employment over the period of interest here, and some of the ways in which the path for this trend has been cleared by a working culture that has – not always voluntarily – become more supportive of it. This suggests that mothers in the younger cohorts have creater capabilities with respect to their labour market opportunities. However, the previous chapter showed that, although

the tangible gap between mothers and their partners is getting smaller with respect to their earning power, the motherhood gap in the labour market persists. The reasons for this are likely to be found in the factors that prevent women from converting their resources into capabilities.

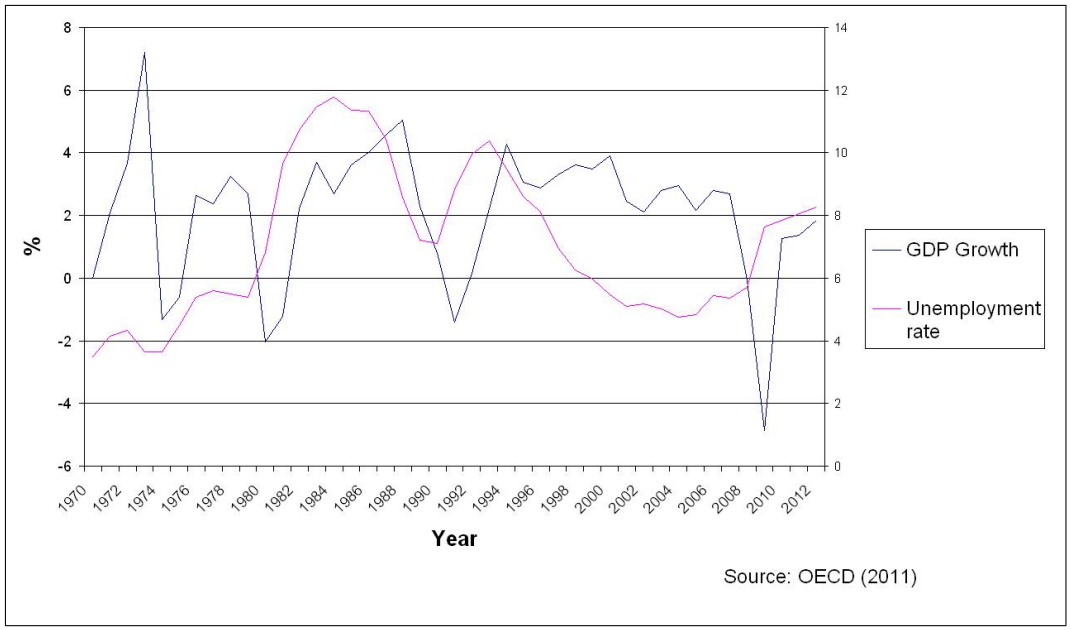
Conversion factors

Although a higher level of human capital gives couples more options with respect to meeting their work and care obligations, all couples are subject to the same set of external constraints on their ability to convert these resources into capabilities, although couples with more resources are likely to still have larger capability sets. These external constraints – what Sen calls 'conversion factors' – affect the return on a given level of resources; the income that will be received, and the costs and unpaid work obligations of the different work and care options. This section considers the impact on the relative capabilities of the mothers in each cohort of the three areas discussed in the policy chapter; labour market and economy, policy and norms. The differences between the two cohorts in these respects imply different pull factors, push factors and barriers.

A key determinant of the expected labour market reward for a given level of human capital is the prevailing labour market and economic conditions. The difference between the two cohorts in this respect is likely to have created a stronger push and pull towards employment for the younger cohort. Economic conditions in 2004 were stronger than in 1991. Figure 7.1 shows the rates of GDP growth and unemployment since 1970. In 2004, growth was 3.0%, compared with negative growth in 1991 of -1.4%. Unemployment was also high in 1991, at 8.8%, almost twice as high as it was in 2004, when it was 4.8%.

In strong conditions, labour demand is higher and there is more space for innovation in ways of working, and greater labour power to demand flexibility. In addition, technological change, particularly in communications, has meant that an employer in 2004 would find it much easier to offer remote and flexible working patterns than an employer in 1991. These trends are likely to have acted as pull factors on mothers in the younger cohort. The downside of an economic upturn is price inflation, and an increase in the cost of living that, for most of the labour force, will not be matched by an increase in wages. The harder it is to meet a family's financial needs on a single income, the less choice mothers will have over how much they work. Therefore, the economic conditions may have pushed the younger cohort into employment as well as pulled them; indeed, these two forces are likely to be related.

Figure 7.1: GDP Growth and Unemployment rates in the UK, 1970-2011



Policy affects the ease of maternal employment in three ways: by helping to facilitate continuity of labour market attachment; by facilitating a more conducive workplace for those with care responsibilities; and by helping families to meet the costs of employment and retain its benefits. Policy has changed a great deal in these respects, although the impact on maternal employment is slightly ambiguous; although it should be easier for mothers to work, there are also incentives and pressures to take longer leaves.

Human capital theory stresses the importance of time in employment for augmenting human capital, and the negative impact of time out not only on lost accumulation opportunities but active depreciation (Mincer and Polachek 1974). By allowing mothers to return to the same job after taking some leave, they can not only save the time involved in searching for a new job when they return, but also avoid having to return at a lower level because they are perceived as less valuable due to depreciation of skills. This helps mothers to maintain their employment trajectories and thus achieve more relative to their potential. However, although maternity leave has this positive effect compared with a situation of no maternity leave, the impact of lengthening leave on maternal emploment is not infinitely positive. The younger cohort are entitled to more leave than the older cohort, and there are fewer conditions attached to this entitlement. The more leave that is allowed, the more likely it is that a mother will be able to take her desired amount of leave, and therefore avoid having to quit entirely. For example, if a mother wishes to take a year off, but is only entitled to six months of leave, she may decide to

quit rather than take less leave than she wants to and return to her old job. However, the longer the leave entitlement, the more likely it is that her preferred length of leave will be facilitated. However, the longer that women are encouraged to take leave for, the worse their human capital outcomes will be; even if they do return to the same job, the lost experience may disadvantage them in subsequent attempts to progress. Therefore, if policy has encouraged the younger cohort to take longer leaves, they may in fact have worse labour market outcomes than the older cohort if the older cohort returned quicker.

Furthermore, the asymmetric extension of leave to mothers but not fathers may have had a normative as well as practical impact, as it may have entrenched rather than challenged the mother as primary carer/secondary earner paradigm. A year of caring instead of working establishes them as the carers in their household and their partner as the earner, creating a gendered division of labour that is then harder to change. If mothers then take the opportunity to return part time as a balancing strategy, this further entrenches this division of roles. The jobs with the highest pay and status are often those requiring full time and unencumbered labour force attachment, and women with care responsibilities may pay the price for being unable to conform to this male adult worker norm, in terms of the jobs that are available to them. Therefore, despite a relaxation in attitudes towards working motherhood (Duncan and Phillips 2008), there has potentially been a concurrent strengthening of the idea of a mother as carer first, which will have had a negative impact on mothers' labour market capabilities.

The return to work after maternity leave is facilitated by a workplace that allows some flexibility, in order to help parents meet their considerable and often unpredictable care needs. This may have to be mandated by the government, as employers may not voluntarily introduce such provisions, although many do. The policy chapter outlined the differences between New Labour and their Conservative predecessors in this respect; the latter did not feel such intervention to be in their remit, whereas New Labour did, albeit with the interests of employers in mind as well. Therefore, one might expect such policies to act as a pull factor for the younger cohort, as it should have made work more attractive for mothers. However, again there is some ambiguity over this effect. The Maternity Rights Survey data suggested that it is predominantly women that make use of such policies, particularly the right to request reduced hours. Thus, the institutional arrangements encourage the role of mother as secondary earner, and mothers deviate even further from the male worker norm than they might do if there were no such opportunities in place. This then adversely affects their human capital and their future employment opportunities. Therefore, one might find that mothers in the older cohort who did choose to work did so on a basis much more conducive to human capital ac-

cumulation than the younger cohort, and therefore their higher potential compensation acted as a pull factor for them.

The tax and benefit system can facilitate maternal employment by helping families to meet more of the costs of a mother returning to work, and by increasing and allowing her to keep more of the gain from it. Unless enough suitable informal care is available, some childcare will need to be purchased if both parents are in employment. The high expense of childcare relative to wages in the UK means that this may represent a large or even complete barrier to returning to work, unless the state offers to either supply childcare or subsidise the purchase of childcare. New Labour offered far more support for childcare than their Conservative predecessors, subsidising care for younger children for lower income families, and introducing free nursery places for 3-4 year olds. Therefore, this cost will have represented less of a barrier for mothers in the younger cohort, and we might expect to see more of them in employment. However, the nature of the employment that was encouraged by the policy reforms was not necessarily full-time employment. Although childcare subsidy and provision was dramatically increased from the previous level of almost nothing, it still falls short of providing enough childcare for all parents that need it. The nursery provision is only for 15 hours per week, which does not even provide enough for a second earner to qualify for working tax credits, which require 16 hours of employment per week.

The government can also make work more attractive by increasing the potential reward from employment. Chapter 5 outlined the way in which the New Labour government extended the reach and amount of tax credits available, providing some relief on the income tax of second earners with children. The introduction and extension of the minimum wage may also have increased the potential earnings of many mothers. Therefore, employment should be relatively more attractive for the younger cohort. In sum, these policy changes acted to increase mothers' capabilities; however, the exact outcome in response to this is not certain as it depends on their underlying preferences.

The younger cohort may also have felt more of a push into employment as a result of policy reforms. The policy chapter outlined the way in which New Labour's encouragement of maternal employment came not from a gender equality perspective, but as part of the drive to increase overall employment rates and tackle social exclusion. The desire to encourage lower-income mothers into work, by making tax credits conditional on a certain level of employment, acted as a stick as well as a carrot, by making staying at home more difficult. The household level assessment of tax credits also means that, the more a mother's partner is earning, the less government support she is entitled to,

making employment the only way in which the household can increase its income. The government is prepared to subsidise childcare, but not provide an equivalent amount of support to a mother to stay at home, making the impetus to work stronger. Therefore, the government, knowing that families are in need of the additional support, can increase maternal employment by making this support conditional on employment.

Preferences

The above discussion has suggested that, in some respects, mothers' capabilities have improved with respect to the work options they have; barriers to work have been lowered, and it has been made more attractive for some. The impact of these changes on labour market outcomes is ambiguous. They will only result in more mothers working if they wish to work but found it impossible or unappealing under the previous social, economic and political conditions. Whether they wish to work depends on their personal evaluation of the costs and benefits of different work and care options. However, there is no obvious difference between the cohorts in these respects; these preferences are not the same as norms, which it has been established have relaxed to a great extent. Indeed, a key rationale of the capability approach is to distinguish between norms and personal preference, by leaving room for both in the decisionmaking process.

However, some of the changes discussed above have not been capability enhancing; they have pushed mothers into work rather than made it easier or more attractive for them to do so. The expected impact of such changes would be that there would be more mothers in the younger cohort in work; they have not just been given the opportunity to work, they have been pushed into it. Therefore, on balance, the combination of the ambiguous effects of increased capabilities, and the positive effects of increased push factors, makes employment more likely in the younger cohort.

7.2.2 Case studies

As with the previous chapter, case studies will be used to illustrate some of the theoretical ideas expressed above, and to understand the role of policy by considering the counterfactual situation. The case study section in the previous chapter focussed on gender roles and dynamics, and the chapter as a whole confirmed the importance of gendered ideas about roles and responsibilities in the division of household labour. In this chapter, the case study section will pay little attention to these issues, and focus

instead on how economic and policy factors affect the push, pull and barrier factors described above.

The case studies illustrate the important role of policy in altering the costs and benefits of maternal employment, which are key to whether a mother returns to work or not. Being a stay at home mother (SAHM) is something that the case study women do first of all because they can, and secondly because they wish to, or at least they do not see sufficient incentive to work. As all the men in the sample here are employed, we can take husband's income as a starting point, from which mothers assess the extent to which they need to augment the family income. She may not need to work at all if her husband's income provides sufficient household goods and her own employment is not valued as highly as caring for her children at home. So for example Janet and Kathy, the SAHMs in the NCDS case studies, have similar earning potential to Carol and Susan, who work part time; however, the former have much higher earning husbands.

For a mother who does not have to work, it may make little sense to do so if her expected earnings are low. Before having children, Kathy (NCDS SAHM) had had a job doing partly skilled assembly work, which paid just £65 per week for full time hours. Were she to return to the same job, childcare would cost £15 per week (Meltzer 1994), and because her husband earns a reasonable salary, she would not be entitled to any of the in-work benefits available in 1991. Therefore, returning to work would not make the family any better off, in fact the net financial impact is negative, and therefore she is unlikely to do so.

For Mandy (BCS SAHM), the policy environment makes work marginally more financially attractive, to the extent that she could make a net gain from returning to work. Before having children she had been a sales assistant; returning to this kind of job 16 hours per week would pay a net salary of £87 per week.[1] Her 5-year-old is at school but she would need to purchase childcare for her 2-year-old, at a likely cost of around £67 per week (Bryson et al 2006). Although tax credits would offset some of the costs of this, because of her husband's earnings she would only be entitled to around half. Thus, although she would make a net gain from returning to work, it is not likely to be more than £50 per week. This illustrates a couple of the issues raised above with the way that family policy has been extended; that although it is more generous, it still does not go far enough, and its household level of assessment means that women are more encouraged to be dependent than they are to return to work. If earning potential is high then it is worth maintaining labour force attachment even if the net gain is temporarily

[1]Note that all prices are at 1991 levels for comparability between cohorts.

low, for the sake of future earnings. However, this is not the case for either Kathy or Mandy. Therefore, they are unlikely to work if they do not highly value work in itself, which they do not; both are less work orientated than average.

The impact of the more supportive policy and economic environment facing the younger cohort can be illustrated by considering how the situation might have been different for the NCDS SAHMs had they been raising children during this time. For example, as their youngest children are all at least three, all would be eligible for a free part-time nursery place, thus offsetting some of the cost of childcare and allowing them to keep more of what they earn. Had the minimum wage been introduced at this time, their potential earnings may have been be higher. For example, Pauline's former job as a cleaner is one that is likely to have been affected by the introduction of a statutory minimum wage. However, the case studies also demonstrate the way that these higher earnings are a double edged sword for women, as price inflation meant that the cost of living rose alongside wages. Karen (BCS, part-time) is also in a clerical role and relatively better paid than Janet. However, she is in work despite having a well-paid husband and being not particularly work-orientated. This may be because the family live in the South East of England and have a joint mortgage, and therefore face a much higher cost of living than Janet did in 1991. This illustrates the way that women in the younger cohort are both pushed and pulled into employment relative to their counterparts in the older cohort.

Once the decision to work has been made along the economic lines discussed above, the decision whether to work full-time or not depends much more on preferences and attitudes, and how these shape the way that mothers respond to the incentives they face to return. For example, if we compare the working mothers in the older cohort, they face a very similar economic situation; there are no substantial differences in their husband's earnings, which they feel the need to supplement, but not necessarily with another full-time income. However, the disctinction between them can be made on the two inter-related dimensions of employment prospects and attitudes to employment. Carol and Susan, who work part-time, have low status and low paid jobs compared to Sandy and Angela, who work full-time, and are less work orientated. These two phenomena are related; there is considerable endogeneity between work orientation, hours worked and hourly pay. Sandy in particular works very long hours in her job, something that Carol and Susan do not seem prepared to do in order to sustain what is a better position. The impact of attitudes can be seen not just statistically but longitudinally as well. The women's occupational histories have taken very different paths since leaving school. Angela and Sandy did not take any labour market breaks when they had children, while Carol and Susan have taken the more gendered route of employment breaks

and part-time working. Although the full-time working mothers are no more qualified educationally, their occupational paths have diverged so much that Carol and Susan could not choose to do what Angela and Sandy do now, even if they wanted to.

This gap between the two paths has been exacerbated by a policy environment that has left them with these two stark choices, through its lack of help in the reconciliation of work and care. The situation is different for the mothers in the younger cohort, in which the part-time working mothers, Karen and Margaret, do not seem to have fallen behind their full-time counterparts, Nicola and Lisa, nearly as much. Karen and Margaret hold higher status and better paid jobs than Carol and Susan, and could potentially earn as much as their husbands were they to work full-time. That they do not seems to come down to individual attitudes. This can be illustrated by a comparison between Margaret and Nicola. Although Nicola feels a strong economic imperative to work given her husband's earnings, she does not have to work full-time; because she does, as a household, their earnings are much higher than average. However, she is highly work-orientated, has been in continuous full-time work since leaving school at 16, and has achieved several promotions in her current employment. This can be contrasted with Margaret, who has worked part-time since returning after the birth of her first child. Although her part-time hours mean that the household's income is a bit lower than average, she has traditional attitudes towards the family, which might well partly explain her decision to work part-time. Margaret has followed a more traditional secondary-earner path since the birth of her first child, but seems to have had more opportunities to maintain a career trajectory that is closer to that of a full-time earner than her counterparts in the older cohort. This may well be due to the increased opportunities for part time and flexible working that she has. It is also interesting to note that, although she took a labour market break after her first child, by the time her second was born maternity leave had been considerably extended, and she is not recorded as having taken a break at this time. This suggests that the extension to maternity leave has allowed her to maintain labour force attachment, which has subsequently benefited her.

7.2.3 Hypotheses

Overall, it seems that mothers in the younger cohort experience greater push and pull factors into employment, and fewer barriers to it. Therefore, it is hypothesised that:

H1: Mothers in the younger cohort are more likely to be in work than those in the older cohort.

This effect is expected to persist even after controlling for systematic individual-level differences between the cohorts that might make employment more likely. Women in the younger cohort with the same level of human capital as someone in the older cohort are more likely to be employed by virtue of the policy and wider economic environment in which they find themselves.

However, two factors make the return to work more likely to be part time, and therefore there will be a greater proportion of part-time workers in the younger cohort. Firstly, these are women who in the absence of the new policy support would have chosen to stay at home rather than work full-time; therefore if this type of woman is encouraged into work, it is arguably more likely to be on a part-time basis. Secondly, as discussed above, the available policy supports are facilitating maternal employment within a mother as carer first and part-time earner second paradigm.

Therefore, it might be expected that:

H2: Of mothers who are in work, those in the younger cohort are more likely to be in part time work than those in the older cohort.

7.3 Descriptive analysis

7.3.1 In or out of work

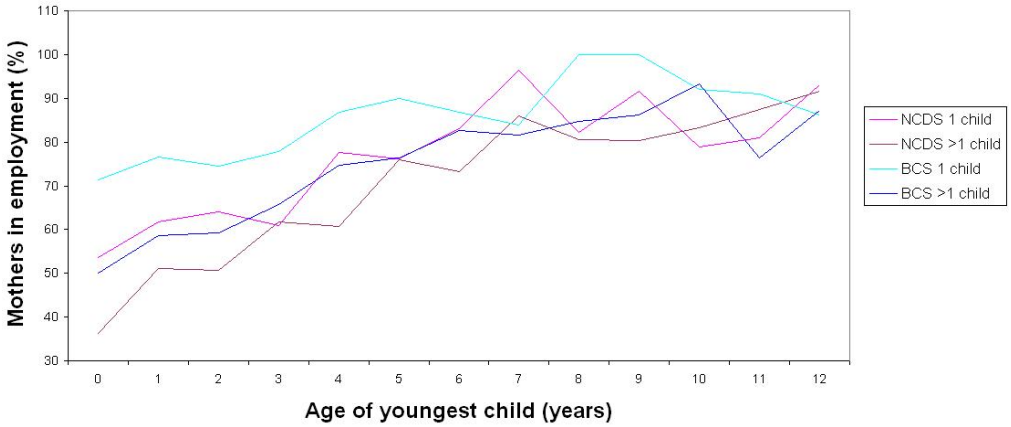
The dependent variable here is a binary indicator of whether the mother is in work or not. Mothers working full or part-time are considered to be in work, while those stating their primary activity as home/family are considered not to be in work. Mothers in other categories such as absent from work due to sickness are excluded for the reasons outlined at the start of this chapter. Any mother on maternity leave at the time of the survey is categorised as being in employment, because this is how their status is recorded in the data. Any woman still under contract and intending to return is coded as being in employment, while those who have ceased to be employed are coded as home/family. Thus, women whose primary activity is looking after children can be coded as 'in work' even though they may not physically be going into work every day, but there is no way of knowing this from the data.

Table 7.2 shows the distribution of this variable by cohort. It shows that more mothers

Table 7.2: Mothers' work participation by cohort

Mother's employment status	Cohort			N
	NCDS %	BCS %	Total %	
Home/family	33.9	27.4	31.1	1,766
In work	66.1	72.6	68.9	3,911
Total	100.0	100.0	100.0	5,677
Pearson chi2(1) =	26.8278	Pr =	0.000	

Figure 7.2: Work participation by cohort and age of youngest child and number of children



in the younger cohort are in work than in the older cohort, as predicted by hypothesis 1. A chi square test finds this association to be statistically significant. As time out of the labour market is almost always a temporary phenomenon, it is also interesting to consider how this participation varies by age and number of children, and how this differs between the two cohorts. Figure 7.2 shows what might be expected; that being in the younger cohort, and having fewer children, makes being in employment more likely.[2]. Over 70% of first time mothers in the younger cohort are still in employment; they may well be on maternity leave, but they intend to return and are still under contract. This compares with just over half of all first time mothers in the younger cohort. By the time the youngest child is 7, participation rates are very similar between the two cohorts and between women with one or more children.

Therefore, predictions about mothers in the younger cohort being both more pushed and more pulled into work seem to be borne out in these figures. However, the analysis cannot simply stop here, as before differences between the cohorts in maternal employ-

[2]A full table of this data is given in table A.7 in Appendix A

Table 7.3: Mothers' full-time or part-time status by cohort

Mother works full or part time	Cohort			N
	NCDS %	BCS %	Total %	
Part time	67.3	65.5	66.5	2,600
Full time	32.7	34.5	33.5	1,311
Total	100.0	100.0	100.0	3,911
Pearson chi2(1) =	1.5076	Pr =	0.220	

ment can be attributed to their environment, it is necessary to control for other pertinent differences between their characteristics that make employment more or less likely. This is what the regression analysis does below.

7.3.2 Full-time or part-time

The other dependent variable used in this chapter pertains only to women in employment, and distinguishes between those in full-time employment, and those in part-time employment, which is defined in the data as less than 30 hours per week. Again it is worth noting that maternity leave is counted as being in whatever employment the mother had previously been in, which makes this variable slightly less useful than it could be. For example, it cannot distinguish between a woman who is on maternity leave but is still coded as full-time, and a woman who has returned to work part-time.

Table 7.3 shows the distribution of this variable by cohort. More mothers in the younger cohort than the older cohort are in full-time work, contrary to hypothesis 2. However, the chi square test suggests that the association is not statistically significant. Therefore, at this raw stage of the analysis the expected pattern of more part time work in the younger cohort does not appear to be borne out. However, more rigorous analysis is needed to see whether this persists after controlling for other variables affecting the probability of part-time work.

7.4 Regression model

7.4.1 Variables and specification

Two regression models are presented here; one predicting work participation, the other predicts full-time participation for mothers in work. There are six blocks of explanatory variables (table 7.4) that try to capture the different dimensions of the work decision as conceptualised above.

Table 7.4: Explanatory variables

Block	Variables
Block 1: Policy environment	Cohort
Block 2: Mother's human capital	Mother's (imputed) wage Mother's highest qualification Longstanding illness or disability
Block 3: Partner's human capital	Partner's (imputed) wage Age partner left school
Block 4: External resources	Sources of external help Nonwage income Accommodation in joint name
Block 5: Attitudes and preferences	Attitudes to working mothers Attitudes to family morality Orientation to work Religious identity Own mother worked
Block 6: Size and distribution of household burden	Number of children Number of children 0-4 Who mostly does the cooking Who mostly does the shopping Who mostly does the cleaning Who mostly does the laundry

Block 1 is simply cohort membership; a dummy variable taking 1 for the younger cohort and zero for the older cohort. This encapsulates the main issue of interest in the analysis; the difference between the policy, normative and socioeconomic environments facing the two cohorts. The other blocks represent the relevant controls to ensure that the cohort effect is not simply an artefact of their different characteristics.

Resources and relative resources

Block 2 represents the mother's human capital. It attempts to use as much of the available information as possible, not only on present status but on historical labour market behaviour, to give a realistic idea of what each woman might expect to earn in the labour market, even if she is not currently in employment. The variables in this block are either wage or imputed wage where no current wage data is available [3], a dummy for disability, and a categorical measure of highest qualification. Although qualification is used in the calculation with imputed wage, it is not very strongly correlated with the final imputed measure, and it was found by likelihood ratio test to improve the model, so it is included here as well.

Block 3 represents partner's human capital, to the extent that this is possible with the data available. Partner's income is the starting point in the theoretical conceptualisation of the work decision here, and it also represents the economic disparities in the household that can have an impact on mothers' bargaining power. The income measure used is of income from all sources, to represent his overall financial contribution to the household. As with mother's human capital, it is a partially imputed measure; although all fathers are in work, there is a lot of missing wage data, and where it is missing it has been imputed to avoid casewise deletion. Again a measure of educational qualification was also found to improve the model and is included.

Block 4 tries to give a picture of the mother's external resources, which are assumed to augment her bargaining power and thus her ability to choose her preferred employment outcome from the household's capability set. It contains variables on sources of external help, income from nonwage sources[4] and a tenure status dummy indicating whether the couple's tenancy or mortgage is jointly registered.

Preferences

[3] As outlined in the methodology chapter, the imputed wage variable takes into account education, labour market history and regional wage variation.

[4] Although there is potentially a correlation between benefit income and work status, all the women in this sample cohabit with working partners, therefore those out of work are not entitled to income support.

Block 5 tries to capture the mother's attitudes to work and family, both directly from attitudinal questions and through some factors that are assumed to have influenced these attitudes. These try to give some indication of the preferences on which a final outcome is chosen from the capability set. It was established in the discussion of the data in Chapter 4 that the available variables on attitudes to family and work are suboptimal due to the point at which they are collected, but provide the best available measure of these attitudes in this dataset. Also included is a dummy variable indicating religious attachment, as these may be indicators of a more traditional family orientation, and, given possible intergeneral linkages in attitudes, an indication of whether the respondent's own mother worked before the respondent started school.[5]

Controls

Finally block 6 attempts to control for variation in the overall size of the unpaid work burden to be shared. It is somewhat endogenous to the labour force participation decision, and any associations need to be interpreted with this in mind. However, these are factors that may well affect a couple's work and care decision and should be controlled for. For example, a family with three children under five clearly faces a very different set of costs and time constraints than one with a single secondary school aged child. Thus, the block includes variables with the total number of children, and the number who are under the age of five. It also includes measures of who does the household chores; whether the mother does these all by herself or whether her partner is willing to help. Although there is some circularity in representing attitudes with outcomes, this variable may also be the best way given the data that is available to represent whether the father is egalitarian or traditional in his family attitudes.

Issues with missing data on four variables meant that, although their inclusion is theoretically interesting, their impact on the sample size and resulting estimates cast too much doubt on the results. Including all four brought the total proportion of missing data from 25% to 44%. Therefore, there is no incorporation of data on the mother's savings, her job aspirations at age 16, and the age her own mother left education. The only variable of the four to be included is whether the mother's own mother worked before she started school, which reduces the sample by around 10%.

[5]Other variables that were thought to have a potential association were marital status, social class of origin, and whether the respondent's parents divorced, but these were found to be insignificant and did not add to the explanatory power of the model, therefore they are not included in the presentation of results here.

Table 7.5: Means of explanatory variables

	NCDS		BCS	
	mean	count	mean	count
Logged hourly wage (£, 1991 prices)	1.373	3228	1.506	2425
Has longstanding illness or disability	0.128	3246	0.224	2425
Highest qualification[1]	2.256	3193	2.635	2425
Partner's logged weekly income (£, 1991 prices)	5.510	3102	5.642	2395
Age partner left full-time education[2]	2.129	3197	2.427	2387
Sources of help	2.400	3139	2.375	2419
Non-wage income (£, 1991 prices)	27.798	3193	51.622	2227
Accommodation in joint or own name	0.914	3234	0.917	2386
Identifies as Christian	0.631	3246	0.217	2424
Attitude to working mothers	-0.040	2559	-0.162	2291
Attitude to family values	-0.062	2559	0.091	2291
Attitude to work	-0.246	2559	0.102	2291
Own mother employed before started school	0.305	2760	0.221	1749
Number of dependent children in household	2.063	3252	1.937	2425
Number of children 0-4	0.709	3252	0.793	2425
Who does the cooking[3]	1.177	3137	1.283	2409
Who does the shopping[3]	1.316	3134	1.289	2411
Who does the cleaning[3]	1.218	3135	1.280	2410
Who does the laundry[3]	1.128	3132	1.187	2411

[1] As measured on a scale from 0 (no qualifications) to 5 (degree or higher)

[2] As measured on a scale from 1 (under 16) to 4 (20 or over)

[3] Where 1 indicates 'woman mostly' and 2 indicates 'shared or partner mostly'

Table 7.5 shows the means of these variables by cohort. This table demonstrates some key differences between the two cohorts in these explanatory variables, which may have implications for their work behaviour. For example, the younger cohort is more educated and has a higher imputed wage, and human capital theory suggests that this would make them more likely to be in work. Not all of these associations make the younger cohort more likely to be in work; although mothers in the younger cohort are more tolerant of working mothers, as indicated by the lower average value on this variable, the older cohort are more work orientated. Differences in the number and age of children are in line with demographic trends towards later childbearing; mothers in the younger cohort have fewer children on average, and are more likely to have a child under five, although these differences are fairly small. The next section will control for all these differences, in order to draw more robust conclusions about the impact of the policy and other environmental factors.

The model

Two logistic regression models were run; one predicting employment, and the other predicting full-time employment for working mothers. The exact form and interpretation of this type of model was outlined in Chapter 4.

7.4.2 Predicting employment

Main effects

Table 7.6: Regression results: mother is in work or stay at home mother

Variable	Mother is in employment	
	Odds Ratio	*p*-value
Cohort	1.366**	(0.003)
Logged hourly wage (£, 1991 prices)	1.170	(0.137)
Highest educational qualification		
None	ref	-
CSE	1.325	(0.122)
O level	1.320	(0.090)
A level	1.255	(0.259)
Higher non-degree	2.798***	(0.000)
Degree/higher degree	2.638***	(0.000)
Has longstanding illness or disability	0.864	(0.203)
Partner's logged weekly income (£, 1991 prices)	0.688***	(0.000)
Age partner left full-time education		
Under 16	ref	-
16-17	0.967	(0.786)
18-19	0.878	(0.436)
20+	0.543***	(0.000)
Sources of help	1.091	(0.142)
Non-wage income (£, 1991 prices)	1.000	(0.644)
Accommodation in joint or own name	1.743***	(0.000)
Attitude to working mothers	0.583***	(0.000)
Attitude to family values	0.980	(0.652)
Attitude to work	1.114*	(0.018)
Identifies as Christian	1.011	(0.906)
Own mother employed before started school	1.220*	(0.041)
Number of dependent children in household	0.796***	(0.000)

Number of children aged 0-4 in household		
None	ref	-
1	0.328***	(0.000)
2 or more	0.144***	(0.000)
Cooking shared equally	1.957***	(0.000)
Shopping shared equally	0.886	(0.236)
Who does the cleaning		
Woman mostly	ref	-
Equal or partner	1.842***	(0.000)
Someone else	2.021*	(0.017)
Who does the laundry		
Woman mostly	ref	-
Equal or partner	1.700**	(0.004)
Someone else	1.583	(0.197)
N	3449	
LL	-1715.7	
Pseudo-R^2	0.184	
Hosmer-Lemeshow G.O.F. (*p*-value)	.139	
% correctly classified	74.7%	

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7.6 shows the results of the logistic regression for the variable predicting employment participation. Overall, the model does not provide a particularly full or satisfying account of mothers' labour force participation, although it does provide some supportive evidence for the theoretical model that has been set out here. The pseudo-R^2 of .184 suggests that a limited amount of the variation in the model is explained by the independent variables included here. The Hosmer-Lemeshow goodness-of-fit test yielded a *p*-value of .15; the nonsignificance of this result suggests that the fit of the model is acceptable.

Block 1: context

The coefficient on cohort is positive and significant, suggesting that mothers in the younger cohort are more likely to be in work, as per Hypothesis 1. The value of 1.366 indicates that the odds of being in employment are 37% higher. The model has controlled for a range of other variables that might influence the probability of work participation,

but the treatment effect remains significant. Therefore, this increased participation is not just because the younger cohort are better educated or more work orientated, as these factors have been controlled for to the extent that they are observable in this data. The evidence is consistent with the theoretical propositions put forward in the previous chapter about the impact of context, or conversion factors, on outcomes. Policy reforms have made it easier and more attractive for mothers to work, which has been reinforced by the opening of labour market opportunities for mothers, economic pressures for second incomes, and normative shifts towards greater acceptance of maternal employment. In short, the results are consistent with the proposition put forward in the previous chapter that, on the whole, mothers in the younger cohort face stronger push and pull factors into work, and fewer barriers in obtaining it.

Blocks 2, 3 and 4: absolute and relative resources

All the other blocks of variables are significant (see table A.8 in Appendix A), even if not every individual variable within that block is. As these blocks were chosen to represent the different dimensions in the theoretical model, it suggests that the model is a suitable if incomplete representation of maternal employment.

The coefficients on the qualification dummies show that women educated to diploma or degree level are more likely to be in employment than those with no qualifications; the odds are around two and a half times as high. However no significant difference was found between women with school level qualifications and those with none. When highest qualification is controlled for, the coefficient on imputed wage is insignificant. This casts some doubt on the proposition that women will be increasingly tempted into work the higher their potential wage; it is not a higher wage per se that tempts women into work. Rather, it suggests a particular type of mother that is more likely to be in employment; highly educated women who have made strong human capital investments, suggesting not only high earnings potential but also strong orientation towards work. These women have more desire to work, more to gain and fewer barriers to working. This reinforces the idea that women with high levels of human capital have a greater choice set.

Disability was not found to be a significant predictor of work status. Perhaps any impact it might have on mothers' employment has already happened; it is already encapsulated in their qualification and work history variables.

Partner's wage was found to have a negative impact on how likely a mother is to be in work; as suggested in the above discussion, this reduces the push on mothers to be in employment. An increase of one (logged) unit reduces the odds of her being in work by 30%. This corresponds with the idea in the theoretical framework that a higher partner income gives women more choice not to work if they do not want to. The effect is significant, although some caution should be exercised, as the standard error calculated here has not taken account of the partially imputed nature of this variable and may therefore have been underestimated, leading to a potentially false calculation of significance. As with mother's education, it is only the most educated fathers who have a significant impact on their partner's work participation. The fact that only the post-school category is significant suggests that it is only a particular type of higher earning father that can afford to support a non-working wife.

There is a positive, significant coefficient on the tenure status variable, suggesting that women whose mortgage or rental agreement is in their name are in a stronger position to negotiate less specialised household outcomes, and to help meet the costs and barriers of returning to work. However, the association almost certainly implies the reverse as well; that women in employment are able to secure better external resources. The coefficient on nonwage income is not significant. This is perhaps because on average the contribution of this source of income to the household is very small, and not enough to impact the decision either way. Sources of help is not significant either; this may be due to the imperfect way in which it captures the underlying concept, as discussed in the methodology chapter.

Block 5: preferences and ability to obtain them

The significance of some of these variables in this block is supportive of the role of preferences as well as contextual factors in understanding household outcomes; in the model, context is controlled for and significant, but attitudes remain at least partially significant. It seems that there is a role for both structure and agency in this decisionmaking model.

The variables representing attitudes are hard to interpret numerically, because the underlying numbers have no intuitive meaning, as they are derived from factor loadings, as outlined in the methodology chapter. However, their direction and significance suggest that attitudes play an important role in the decision to work, along the lines theorised above. The variable representing attitudes to working motherhood is significant and negative as expected; the less favourable a mother's attitudes towards working mothers, the less likely she is to be in employment. Attitudes to work were also found to be

significant, with more work-orientated mothers more likely to be in employment. The fact that these two variables are significant even when controlling for the human capital factors above suggests that education and potential wage imperfectly capture orientation towards work and family. As was suggested by the case studies, women need not have particularly high human capital to be highly work orientated. The decision to work is not just based on the prevailing incentives, but on orientations towards these relative costs and benefits. The coefficient on family attitudes is not significant, perhaps reflecting the imperfect association between abstract ideas about marriage, and personal views about how one's own household should operate.

A mother whose own mother worked before she started school is more likely to be in employment; this increases the odds by 26%. This lends some support to theories of an imperfect but perceptible transmission of values about working motherhood between generations.

Block 6: controls for family responsibilities

It is interesting to note the degree to which the explanatory power of the model improves with the addition of the final block controlling for the size and distribution of family responsibilities. Before adding this block, the pseudo-R^2 is around .09, but afterwards it increases to .18. Therefore, these variables alone account for half of the model's explanatory power, with the other variables playing quite a small role in explaining variation in mothers' employment. These results suggest that the costs of and barriers to employment are higher, the larger and less equally shared the unpaid work burden is, and that the mechanisms to support working mothers only do so up to a point. This is also consistent with ideas in Chapter 6 about the cumulative impact of motherhood creating a vicious circle of gendered specialisation. However, it is important also to consider the potential endogeneity between family size, task distribution and egalitarianism. Perhaps more traditional women are happier to specialise in child care, and are therefore more likely to have more children and do more household work because they are not trying to combine work and care. Or it may also suggest that couples who prefer a more egalitarian arrangement may limit their family size in order to achieve this.

The number of children in the household and their ages are both significant variables. Each additional child reduces the odds of being in work by 20%. The impact of the presence of pre-school children is even higher; compared to mothers who have no preschool children, the odds of being in work are two thirds lower for mothers with one pre-school child, and 85% lower for women with two or more. This may reflect normative ideas

and individual preferences about the care of very young as opposed to older children. However, the high price of childcare for preschool aged children will also exert pressure in the same negative direction by imposing a barrier to employment. It is impossible to say from these results which of these factors is having the strongest influence.

Some of the household task division variables were found to be significant; having a partner who shares the cooking, cleaning and laundry at least equally are associated with a mother being in work; the odds are nearly twice as high in the case of sharing the cooking. There is almost certainly a degree of endogeneity or at least simultaneity in these results; mothers may perform the majority of the household chores because they do not work, and this is how they organise the division of work and care. However, given the evidence in Chapter 6 that men with full-time working partners do not necessarily help with the household tasks, a mother may also take into account how helpful her partner is with these tasks when weighing up whether to go back to work. A final point worth noting is that the largest coefficient in the household task variables is on the category of someone else doing the cleaning; the odds of a mother with an external cleaner being in work are twice as high than a woman who does most of the cleaning herself. This compares with 1.8 times higher for women whose partners help. Therefore, it would seem that being able to shift the burden rather than having to redistribute is a more likely route to an egalitarian division of labour.

As the above model is large and not every variable is significant, a more parsimonious model was also run, which omitted the insignificant variables, as the inclusion of irrelevant variables inflates the standard errors, leading to false conclusions of insignificance (Menard 1995:59). The results of this are given in table A.9 in Appendix A. Omitting the insignificant variables increased the sample size by 171, at almost no cost to the explanatory power of the model as measured by the pseudo-R^2. The Hosmer-Lemeshow test also indicated that the model remains a good fit for the data. However, there were also some drawbacks to estimating this more parsimonious form of the model. Coefficients in the reduced model were identical in direction but slightly larger than the full model, indicating the bias that occurs when relevant variables are omitted in a regression model; the effects of the remaining variables are overstated because they are accounting for the effect of the omitted ones. Therefore, this problem, combined with some doubt over the usefulness of the Wald test for significance in logistic models (Menard 1995; Agresti 1996) meant that the final model used in this chapter was the one with all the variables.

Cohort effects and interactions

As with the previous chapter, tests were conducted to establish whether the pooling of the two cohorts into a single model was acceptable. A likelihood ratio test of the pooled versus separate models was significant, suggesting differences between the two cohorts in the magnitude of the coefficients. Running the two models separately (table A.10 in Appendix A) shows some differences in the magnitude, significance and even direction of some of the coefficients. This suggests that there may be interaction effects between cohort and other explanatory variables. These suspected interactions were also tested for significance, by re-running the model with interaction terms. Most of the interactions were not found to be significant, based on the Wald test. For example, table A.10 shows that the odds ratios on the higher education dummies appear to be higher for the younger cohort, suggesting a stronger impact, but the interaction between qualification and cohort was not found to be significant.

Some suspected interactions did however turn out to be significant; the coefficients on the significant interaction terms are shown in table 7.7. The impact of both own and partner's income was found to vary by cohort. This was suggested in the table with the separate models, which shows that the impact of wage is completely different in the two cohorts. Table A.10 shows that mother's wage is positive and significant for the younger cohort, and the impact is strong; an increase of one (logged) unit increases the odds of participation by 47%. However the coefficient is negative and insignificant for the older cohort. This marked difference perhaps also gives some insight into why the variable was found to be insignificant in the pooled model. Partner's income also has a different effect in each cohort, being negative and significant in the older cohort, and negative but insignificant in the younger cohort. This perhaps suggests different attitudes to income pooling in the two cohorts; that mothers in the younger cohort do not expect to be financially supported in the same way that the older cohort did, and therefore do not adjust their employment behaviour in response to their partner's earnings as much.

The coefficient on the product term of cohort and own wage (table 7.7) indicates that the positive impact of an additional unit of income on work participation is 1.9 times higher for the younger cohort. Similarly, the negative impact of an additional unit of partner's income is 1.5 times weaker for the younger cohort. Therefore, it would seem that mothers' employment in the younger cohort is more responsive to their own earning potential, and less responsive to their partner's. This lends some support to the contention that mothers in the younger cohort face both lower barriers and greater push and pull factors to earn. The fact that own wage has no effect for the older cohort sug-

gests that mothers in this cohort were unable to respond to wage incentives in the same way as mothers in the younger cohort because they faced additional barriers to work participation. Furthermore, the insignificance of partner's wage in the younger cohort suggests that mothers in this cohort face greater pressure to earn, due to the economy and the cost of living, even if their partners are well paid, while mothers in the older cohort found it easier not to work.

The other significant interaction is between cohort and children under five. The coefficient on this interaction suggests that the negative impact of an additional child under five is 27% stronger for the younger cohort. This may reflect stronger preferences on the part of this cohort towards home care of small children, although the variable means in table 7.5 suggested that this cohort are more favourable towards working mothers. Therefore, it may reflect the barriers this cohort face in combining work and care.

Table 7.7: Impact of selected interaction term coefficients on the dependent variable

Interaction term	Mother is in employment	
	Odds Ratio	*p*-value
Cohort * logged hourly wage	1.886**	(0.006)
Cohort * logged partner's wage	1.470*	(0.026)
Cohort * partner's qualification	0.771*	(0.041)
Cohort * number of children aged 0-4	0.731*	(0.033)

7.4.3 Predicting full-time participation

Table 7.8 shows the results for the model predicting full-time versus part-time participation. The pseudo-R^2 of .146 suggests that the explanatory variables used here are even less satisfactory for explaining work hours than they are for explaining employment participation. However some are significant, and the Hosmer-Lemeshow test indicates a good fit for the data.

Unlike the previous model, the coefficient on cohort is not significant. The odds ratio of 0.884 indicates a relationship in the hypothesised direction, but it was not found to differ

significantly from 1. Therefore, this confirms what was suggested in the descriptive analysis above; that the decision to participate full or part time does not vary systematically by cohort. It is necessary to look beyond the influence of policy, cultural or economic factors in understanding why mothers work the hours they do.

Table 7.8: Regression results: mother works full-time or part-time

Variable	Mother works full-time	
	Odds Ratio	*p*-value
Cohort	0.884	(0.300)
Logged hourly wage (£, 1991 prices)	1.008	(0.941)
Highest educational qualification		
None	ref	-
CSE	1.061	(0.797)
O level	1.244	(0.289)
A level	1.433	(0.153)
Higher non-degree	1.898**	(0.005)
Degree/higher degree	2.591***	(0.000)
Has longstanding illness or disability	0.788	(0.078)
Partner's logged weekly income (£, 1991 prices)	0.793*	(0.027)
Age partner left full-time education		
Under 16	ref	-
16-17	1.098	(0.497)
18-19	1.123	(0.543)
20+	0.959	(0.834)
Sources of help	0.912	(0.178)
Non-wage income (£, 1991 prices)	1.000	(0.134)
Accommodation in joint or own name	0.912	(0.619)
Attitude to working mothers	0.696***	(0.000)
Attitude to family values	0.869**	(0.007)
Attitude to work	1.169**	(0.003)
Identifies as Christian	0.920	(0.455)
Own mother employed before started school	1.347**	(0.004)
Number of dependent children in household	0.624***	(0.000)
Number of children aged 0-4 in household		
None	ref	-
1	0.569***	(0.000)
2 or more	0.473***	(0.000)
Who does the cooking		
Woman mostly	ref	-
Equal or partner	1.964***	(0.000)
Someone else	2.729	(0.357)

Who does the shopping		
Woman mostly	ref	-
Equal or partner	1.343**	(0.006)
Someone else	3.989	(0.347)
Who does the cleaning		
Woman mostly	ref	-
Equal or partner	1.788***	(0.000)
Someone else	1.891*	(0.016)
Who does the laundry		
Woman mostly	ref	-
Equal or partner	1.564**	(0.002)
Someone else	3.200***	(0.000)
N	2420	
LL	-1307.0	
Pseudo-R^2	0.146	
Hosmer-Lemeshow G.O.F. (*p*-value)	.375	
% correctly classified	73.2%	

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All of the other blocks of explanatory variables were significant, apart from block 4 (see table A.11 in Appendix A). As far as absolute and relative resources are concerned, only mother's education was found to be significant, and within this only the highest category. The odds of a degree-educated woman being in full-time employment are 2.6 times higher than a woman with no qualifications. This variable seems to capture any effect of the additional income such women are likely to earn, as the coefficient on imputed wage is not significant. Partner's income or education are not significant predictors of whether a mother is in full or part-time work, suggesting that while the decision whether to work is based in part on economic imperative, the decision of how many hours is based more on expected rewards and attitudes to work.

All three attitude variables are significant, and the direction of the coefficients is as expected. Women who are more work orientated are more likely to be in full-time employment, while women whose views are less favourable to working mothers and more traditional with respect to family values are less likely to be in full-time employment.

This lends some support to the idea that employment and family orientation plays some role in determining a mother's employment behaviour, although the results are also consistent with less agentic interpretations. They suggest an element of doing gender; perhaps mothers who would prefer to be stay at home mothers are more likely to work part-time because it allows them to perform this aspect of their perceived role as a good mother. They are also consistent with ideas of intergenerational transmission of values. As with the previous model, having a mother who worked is highly significant, and increases the odds of being in full-time work by 35%, thus lending support to the idea of intergenerational value transmission as well.

Both number of children and number of children under 5 are found to have a significant impact. The former makes more of a difference to work hours than it does to employment participation, but whether children are younger makes less of a difference. However, the effects are still fairly substantial in both cases; an additional child reduces the odds of working full time by 38%, while one additional child under five reduces the odds by 43% and more than that by a further 10%. The household task variables are all significant, indicating a strong but probably bi-directional link between task sharing and the division of paid work. As with the previous model, the largest of these coefficients is on having an external cleaner, suggesting the importance of outsourcing domestic work.

As might be expected given the insignificant cohort effect, a Chow test does not detect any significant difference between the coefficients in the two cohorts. Therefore, there is little point in presenting the separate models, or carrying out any tests of interaction between cohort and the other variables.

7.5 Discussion

The key finding here with respect to differences between the cohorts in mothers work and care capabilities is that the era of childbearing has a significant impact on whether they are in work, even after controlling for other potential explanatory factors. The New Labour government wanted to get more women into work, and the evidence is consistent with it having succeeded; there does appear to be something about childbearing in 2004 that is more conducive to combining work and motherhood than childbearing in 1991. This cohort effect persists even after controlling for systematic differences in the individual-level characteristics that make work more likely. Therefore, if a woman from each cohort has the same level of human capital and the same attitudes towards work

and family, the woman in the younger cohort is more likely to be in work. This suggests that policy reform, in combination with other relevant economic and normative changes, has expanded women's capabilities to combine work and motherhood. Although it is also consistent with the idea that women in the younger cohort feel greater pressure as well as incentive to work.

However, it should also be noted that the change in maternal employment, although significant and consistent with the theoretical propositions set out above, has been small in magnitude. The difference in rates of maternal employment between the two cohorts is 6.5 percentage points (table 7.2); policy reform has not precipitated an influx of mothers into employment. This further reinforces the previous chapter's conclusions about the resilience of gendered parenting behaviours. Even more strikingly, what seems not to have changed at all is mothers' propensity to work part-time as opposed to full-time. This is also an interesting finding, as it suggests that women's capabilities to combine work with full-time motherhood have not improved. Looking at the coefficients on the dummy variables for number of children, even in the younger cohort there is a steep negative effect of each additional child on the likelihood of employment and full-time working. This suggests that the care costs of additional children are considerable, and that the expansion in childcare has still failed to make nursery care for more than one child feasible for many parents.

Considerable continuity in maternal employment behaviour was predicted for several reasons, but in particular it was thought to be likely due to the insufficiency of childcare to support full-time work, and the entrenchment of mothers in secondary earner roles due to the gender asymmetric extension of parental leave. These factors were all predicted to adversely affect mothers' capabilities to combine paid work and care, and the results here are consistent with this theoretical perspective. However, these results are also consistent with a preference-based explanation for the persistence of a gendered division of labour between partners. It could be that, regardless of changing policy provisions, a substantial proportion of mothers simply prefer not to work, or to work part-time, as their optimal strategy for the reconciliation of work and care. There is no way to tell in this type of analysis which of these interpretations is correct, or the extent to which there may be truth in both of them.

The results also generate an interesting finding around determinants of work and care beyond policy factors. There seems to be a difference between the drivers behind the decision whether to work at all, and those driving the decision to work full-time. In the model of the former, it was absolute and relative human capital variables that showed

the strongest effects. Mothers with higher earning partners were less likely to be in employment, although it is not clear that this effect extends to the younger cohort. On the other hand, in the model predicting full-time employment, it was attitudes that seemed to be the key explanatory variables. This suggests that once the required hours have been reached to earn sufficient household income, mothers' decisions about work hours depend more on their orientations to work and care.

Chapter 8

Mind the gap: motherhood penalties in pay and status

This chapter will examine differences in pay and status between mothers and non-mothers. Unlike previous chapters, it brings childless respondents into the analysis, in order to establish the comparative penalty to motherhood. It seeks to establish the extent of the labour market penalties associated with motherhood in each cohort, and to compare these penalties between cohorts, in order to illuminate the potential impact of the changing policy environment on mothers' labour market opportunities.

It is not entirely clear from what has been presented so far what might be expected with regard to this difference. On the one hand, mothers' employment outcomes seem to have improved over the relevant period. At the aggregate level, the gap between male and female labour force participation narrowed between 1991 and 2004, the two time points under consideration here; this gap narrowed by 7 percentage points, although this was due to a decrease in male participation as well as an increase in female (see Figure 1.1 in Chapter 1). Over the same time period, the gender pay gap also fell, by 9 percentage points (see Figure 1.2 in Chapter 1). Chapter 7 did suggest that mothers in the younger cohort are more likely to be in employment than mothers in the younger cohort. However, it was also found that they are no more likely to be in full-time employment, and are therefore still subject to the same penalties to part-time working. Chapter 6 also suggested that mothers in the younger cohort are more likely to take primary responsibility for childcare. This may limit their labour market possibilities, as mothers might avoid jobs they are otherwise qualified for in order to fulfil their childcare responsibilities.

In light of this ambiguity, the final step of the analysis in this thesis will be to look directly at the pay and status of the mothers in the two cohorts. The chapter starts by delineating the relevant dimensions of labour market performance, and using the theoretical framework to generate hypotheses about differences between the two cohorts in these respects. It then uses regression models to compare the two cohorts, bringing in non-mothers as well in order to understand the extent to which mothers' labour market disadvantage is due to motherhood and how this has changed.

8.1 Questions and sample

This chapter asks what drives the motherhood gap, how these influences differ between the two cohorts, and whether the gap itself is changing. Differences between the cohorts may be a result of differences in their characteristics at the individual level, or it may suggest salient differences in the environment in which mothers in the two cohorts are balancing work and care. Of particular interest among these environmental factors is the role of policy in influencing the costs and opportunities that mothers face, and whether the extension of work-family reconciliation policies has facilitated maternal employment in a capability-enhancing way.

There are many ways in which status in the labour market might be conceptualised and operationalised. To delineate a manageable scope, this chapter focuses on two aspects; pay, and socioeconomic classification. These two aspects are related, but they are not the same thing, as the latter takes into account other aspects of a job such as where it is situated within the system of relations between employees in the labour market. However pay itself is still important, as there may still be systematically gendered intra-status inequalities in pay, which contribute to the gender pay gap.

Specifically, the questions under consideration are:

1) To what extent do job characteristics drive the gap in pay and status between mothers and non-mothers?

2) To what extent does motherhood itself drive the gap in pay and status between mothers and non-mothers?

3) Is the motherhood gap in status smaller in the younger cohort?

4) Is the motherhood gap in pay smaller in the younger cohort?

The sample under consideration here needs to incorporate non-mothers as well as mothers, and calculate the motherhood effect within each cohort rather than a cohort effect within a single model. This is because there are considerable differences between the two cohorts as a whole in terms of pay and status; a higher proportion of the younger cohort are in professional occupations, and wages are on average higher, even after price standardisation. Therefore a simple cohort effect will incorporate large macro level socio-economic changes as well as those related to the progress, or otherwise, that mothers have made. For this reason, the motherhood effect will be calculated separately and then compared between cohorts.

The analysis uses a broader sample than previous chapters, as it will incorporate all those in employment, with or without children. All those in the sample are married or cohabiting; as single parents are excluded from the analysis, the non-parents should be partnered as well for comparability. All cohort members have a partner in employment, either full-time or part-time. This is necessary for symmetry between male and female respondents. As none of the female cohort members in this sample are stay at home mothers, the sample of male cohort members needs to exclude any with a stay at home partner as well, in order to compare like with like. Sub-sample sizes are given in table 8.1.

Table 8.1: Sub-sample sizes

	Cohort		
Sex/parenthood status	**NCDS**	**BCS**	**Total**
Female, children	2,193	1,818	4,011
Female, no children	648	672	1,320
Male, children	1,725	1,409	3,134
Male, no children	834	765	1,599
Total	5,400	4,664	10,064

8.2 Hypotheses

This section will generate hypotheses for the questions posed above, based on the capabilities-based theoretical framework that has been employed throughout this analysis. This framework attempts to reconcile the idea of human capital effects on labour market outcomes with the constraints that lead to human capital disparities in the first instance. Orthodox human capital theories conceptualise the employment behaviour of mothers as a choice made by the mothers themselves, made willingly according to preference.

This effect is assumed to operate entirely on the 'supply side'; there should be no systematic undervaluation or discrimination on the demand side as this is irrational on the part of employers. However other theories argue that mothers are constrained in their work options by external factors on the one hand, such as discrimination and systematic undervaluation, and by their care responsibilities, which are distributed unequally, on the other.

The theoretical framework used here conceptualises household outcomes in terms of capabilities rather than choice, therefore it asks what options mothers truly have in balancing the need and desire to work with the responsibility and desire to care. As developed in previous chapters, these options are understood as a capability set, which is determined by the opportunity-enhancing resources they have at their disposal, and the conversion factors that restrict their opportunities. This chapter seeks to establish the difference between the cohorts with respect to their capability set of labour market opportunities, and the extent to which policy reforms have been capability enhancing.

8.2.1 Understanding the problem within the capabilities framework

Resources

As established in previous chapters, capabilities are enhanced by human capital, the things that are assumed under the orthodox human capital perspective to endow labour maket 'value'; education and employment experience (Mincer 1958, 1974; Becker 1964, 1975). The more human capital a person has, the greater potential value they can command in the labour market. Mothers are disadvantaged relative to non-mothers in this respect because they trade these value-enhancing investments for time out of the labour market, or part-time or flexible working, in order to fulfil their care responsibilities. Any deviation from a labour market trajectory of continuous full-time employment has a negative impact on pay and status. Mothers make this trade-off to varying extents, depending on their own preferences, their unique employment and family situation, and wider labour market and policy factors. Non-mothers make this trade-off to a lesser extent, if at all; previous chapters have shown that the vast majority of fathers work full-time.

The nature of this 'family-friendy' trade-off may be a reduction in hours, which can take the form of a switch to part-time hours after having children, or even a reduction from

long hours to normal full-time hours. Furthermore, even among full-time employees, there may be differences in the jobs that mothers do. They may take on or be assigned fewer managerial or supervisory responsibilities, and they may be more likely to work in particular sectors, industries or occupations that are both female dominated and relatively lower paid (Manning and Petrongolo 2008; Mumford and Smith 2009). As human capital accumulation is a dynamic process, these disparities have a cumulative effect on future labour market value if they persist for an extended period of time.

The analysis presented so far has suggested that mothers in the younger cohort may have the upper hand over their older counterparts in human capital terms. Working mothers in the younger cohort were found to have a higher potential wage (table 7.5 in Chapter 7), and more likely to be in employment, even controlling for individual-level factors (table 7.6 in Chapter 7). Therefore it might be expected that they are in a stronger position with regard to the labour market opportunities at their disposal. However, it was also found that they are just as likely to be in part-time employment (table 7.8 in Chapter 7), which may limit not only human capital accumulation but their ability to use the human capital they do have, if the best jobs require full-time attachment. The net impact of these differences depends on the extent to which part-time positions offer better opportunities for the younger cohort compared with the older cohort.

Conversion factors

Motherhood has a profound impact on resource accumulation due to employment behaviours around childbearing. However, for a given level of resources – i.e. assuming that a mother and a non-mother have theoretically the same labour market value – mothers may still achieve less. This is due to a number of practical and normative conversion factors that prevent them from using their human capital in the same way as non-mothers, and thus restricts their capability set of labour market opportunities.

On a practical level, mothers may have problems in reconciling employment and care responsibilities. Unpaid work responsibilities may reduce the amount of time and energy available for paid work; the 'work effort hypothesis' (Becker 1985). Two people with the same potential earnings will not in reality have the same labour market opportunities if one has additional household work to perform in addition to their paid work tasks. The gendered distribution of household tasks (figure 1.3 in Chapter 1) means that household work is more likely to be a labour market handicap for women, and the problem is further exacerbated for mothers, who also take on the majority of the additional work

generated by children.

Work-family reconciliation policy can facilitate employment by relieving mothers of some of their care responsibilities. The state can assume some of these responsibilities, by providing or subsidising childcare, or by allowing mothers to redistribute care responsibilities to fathers by extending leave and flexibility provisions to both parents. However, Chapter 5 suggested that, in reality, the policy environment does not accomplish this for either cohort. The lack of work-family reconciliation support for the older cohort perpetuates a gendered status quo because there is no impetus to move towards more egalitarian outcomes. Meanwhile, the asymmetrical extension of parental leave to mothers in the younger cohort has entrenched a gendered division of labour in which they become primary carer and secondary earner. Thus, in both cohorts, mothers are constrained in pursuing continuous, full-time labour market participation, with the associated labour market penalties that this entails.

One possible advantage for the younger cohort is that they should have greater ability to work flexibly and part-time, thanks to enhanced rights to request such arrangements. This may have a negative effect on their earnings compared with non-mothers in their cohort, as the jobs offering the most flexibility may not be the best paid or most senior. However, relative to their counterparts in the older cohort, they may be able to obtain and hold on to jobs that might otherwise have been incompatible with their childcare responsibilities.

Negative perceptions of working mothers may impose normative constraints on mothers' labour market participation. These perceptions exist on both the demand side among employers, and the supply side among mothers themselves. Employers may discriminate against mothers on the basis of their likely competency and commitment, which they may perceive as lower due to their care responsibilities (Cuddy et al 2004; Fuegen et al 2004; Correll et al 2007). Gendered organisational processes may determine which employees the company decides to invest the most training and resources in, which may mean that women are employed but kept out of the more lucrative opportunities (Reskin 1993; Tomaskovic-Devey et al 2005; Manning and Swaffield 2008). These factors are almost impossible to measure, and are certainly impossible to capture directly within the scope of this research, but a motherhood penalty that persists after controlling for the kind of human capital differences outlined above supports the possibility of their existence.

Norms about parenting roles may also delimit the acceptable possibilities for division

of labour in the household, and the extent to which mothers can devote their time and energy to paid work. These norms are transmitted from their own parents, and although each generation is on average more egalitarian than the last, some inter-generational correlation exists (Burt and Scott 2002; Cichy et al 2007; Van Putten et al 2008). These norms affect not only the allocation of tasks, but also how they are perceived and interpreted. The strong norm of father as breadwinner means that the male partner in a couple is almost always constructed as the main earner, even when he earns less than his partner, and similarly the household work tends to remain women's domain even when the work is shared (Deutsch and Saxon 1998; Tichenor 1999; Charles and James 2005; Dema-Moreno 2009; Legerski and Cornwall 2010). Therefore there may be strong normative reinforcement of mothers' labour market participation as secondary, which does not allow them to prioritise it in the same way as fathers.

Policy is less effective in eliminating these normative barriers than it is with practical ones. Policy can be used to outlaw overt discrimination, and mandate a certain level of family-friendliness in the terms on which workers are employed. However it cannot necessarily overcome the more opaque and subtle forms of discrimination that may occur against mothers, which are based on ingrained beliefs about working mothers. The most it can do is to open up as many opportunities as possible to mothers, who then have the opportunity to demonstrate competence and commitment and ultimately challenge these beliefs. Similarly, it cannot directly challenge the unequal division of labour in the home, but without opening up these opportunities by equalising policy provision to men and women, there is no opportunity to establish new parenting norms.

Preferences

The final element of the capabilities approach, after the range of possible capabilites has been delineated, is individual preference. Mothers will vary in the extent to which they want to trade family friendliness for reduced pay and status, depending on how much they value paid work and their attitudes to parenting and family. There is considerable heterogeneity in this; some mothers may wish to maintain as tight a hold as possible on the labour market, others may place considerable value on caring for their children at home, whatever the cost to their own labour market opportunities. These attitudes will be shaped by the prevailing normative environment, which will vary between the two cohorts, but it also has an individual element such that the correlation between attitudes and cohort will be imperfect. Therefore the models below need to incorporate this individual element of preferences as well as the macro level difference in attitudes

to work and care.

8.2.2 Hypotheses

The first two questions posed at the beginning of this chapter were concerned with establishing the human capital and motherhood factors associated with the gender pay gap in both cohorts. The resource disparities caused by motherhood that were outlined above should have a negative impact on the capability set of labour market options. Thus:

H1: The more 'motherhood-friendly' a mother's employment (in terms of deviations from continuous full-time employment), the less she will be paid and the less likely she is to be in a professional job.

However, although the gap will have a human capital element, this alone will not explain the gap. I also expect motherhood to exert an independent effect due to care responsibilities holding them back from jobs that they would otherwise have the opportunity to do. Thus:

H2: Mothers will be in systematically lower-paid and lower status jobs than non-mothers for a given level of employment attachment and human capital.

The second two questions concern the relative size of the motherhood gap between the two cohorts. The likely explanatory factors for any differences are not all in favour of one cohort over another. The effect of changes in employment behaviour and household division of labour is ambiguous, as is the impact of policy, which may have entrenched inequality. However, overall it should be eaiser for mothers to get better jobs; there is better policy support in place, and the prevailing normative climate is more favourable towards working motherhood. In short, a mother in the younger cohort should get a better job than a mother in the older cohort with the same level of human capital. Thus:

H3: The motherhood gap in socioeconomic classification will be smaller in the younger cohort.

H4: The motherhood gap in pay will be smaller in the younger cohort.

Table 8.2: Median hourly wage, net weekly pay and weekly working hours by sex, parenthood status and cohort

	Median		Mean	N
	Median hourly wage (£)	Median weekly net pay (£)	Mean weekly hours	
Sex/parenthood, NCDS				
Female, children	3.65	78	23.2	2,193
Female, no children	4.85	185	37.7	648
Male, children	5.06	222	44.2	1,725
Male, no children	5.24	225	43.7	834
Total	4.47	170	34.6	5,400
Sex/parenthood, BCS				
Female, children	4.65	114	26.6	1,818
Female, no children	5.35	215	40.3	672
Male, children	5.72	256	46.7	1,409
Male, no children	6.02	267	45.9	765
Total	5.28	198	37.5	4,664

The remainder of the chapter will test these hypotheses empirically.

8.3 Descriptive analysis

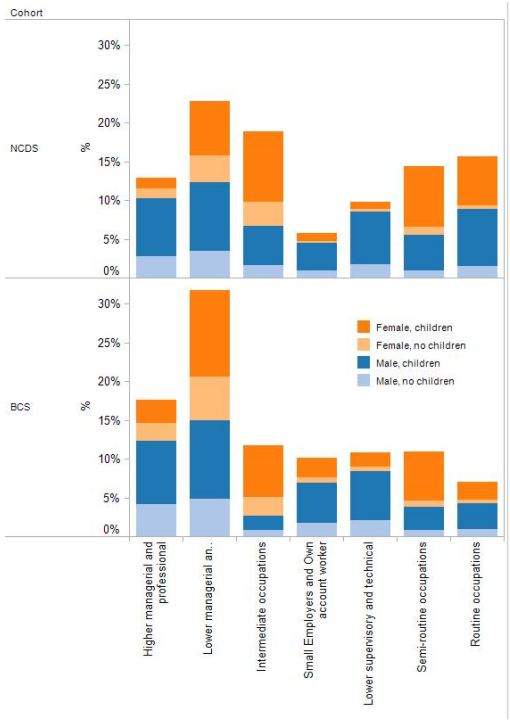
This section explores the variables that will be used in the regression modelling in the next section. The figures presented represent a simple bivariate approach to the question of the size of the motherhood penalty and how it differs between the two cohorts. More sophisticated analysis needs to be carried out before any firm conclusions can be drawn.

8.3.1 Dependent variables

In this analysis, pay is represented by the hourly wage. Table 8.2 shows that mothers in both cohorts have a lower hourly wage than men and childless women, although this gap is narrowing. The gap between mothers and fathers is 31% in the older cohort and 21% in the younger cohort. Childless women have a lower hourly wage than men, indicating a gender as well as motherhood gap; in fact this gap is slightly larger in the younger cohort than the older cohort. In both cohorts, fathers have a lower hourly wage than

childless men but equal or greater median weekly pay, suggesting that they work longer hours than childless men, and indeed the data for mean hours would suggest this.

Figure 8.1: NS-SEC by sex, parenthood status and cohort



Job status is measured using the National Statistics Socio-Economic Classification (NS-SEC). Figure 8.1 shows the occupational distribution in each cohort; the proportion of the sample in each NS-SEC category. Within this, the segments in each bar indicate the proportion of each category that is mothers, childless women, fathers and childless men. Comparing the two panels overall shows how the occupational distribution has shifted upwards. In other words, the younger cohort are more likely to be in professional or managerial occupations than the older cohort. Women have increased their representation in the lower professional and managerial category, but the highest category remains male dominated, which has implications for the gender pay gap, as this highest category is likely to be the most highly remunerated. This suggests that, although mothers have made some advances in the labour market, the most senior and high status jobs are still incompatible with their childcare responsibilities. The whole distribution is gendered; women now make up the vast majority of those in intermediate occupations, while self-employed and technical occupations remain male dominated. Therefore occupational segregation would seem to exist at the NS-SEC level as well as within job groups.

Table 8.3: Managerial responsibilities and occupational segregation by sex, parenthood status and cohort

	Mean			N
	Managerial responsibilities (%)	Occupational segregation (% female)	Public sector (%)	
Sex/parenthood, NCDS				
Female, children	35.5	71.8	44.0	2,193
Female, no children	54.4	61.2	44.8	648
Male, children	57.5	20.1	29.5	1,725
Male, no children	61.1	24.3	30.0	834
Total	48.6	46.8	37.5	5,400
Sex/parenthood, BCS				
Female, children	33.3	68.1	45.2	1,818
Female, no children	50.5	55.1	40.1	672
Male, children	52.6	19.5	24.7	1,409
Male, no children	53.8	23.6	25.0	765
Total	45.0	44.2	35.3	4,664

8.3.2 Explanatory variables

It is also useful to examine whether the dimensions of family-friendliness that are hypothesised to affect pay and status vary between the sexes and cohorts as predicted above. Table 8.2 also shows mean working hours by sex, parenthood status and cohort. Working hours are longer in the younger cohort for all groups; mothers, fathers and childless men and women. In fact, the biggest increase is among mothers, who work on average an extra 3.5 hours per week, an increase of 13%. However, mothers still work by far the fewest hours per week, and fathers work the longest. There is some gender discrepancy as well; childless women average a standard full-time week, whilst men report working slightly more than this.

The proportion of each group reporting managerial or supervisory responsibilities is shown in table 8.3. This suggests a lower proportion of the younger cohort reporting managerial responsibilities, although the different question framing in the two surveys casts some doubt on the comparability of the data between cohorts. However, within cohorts, the relationship is broadly as might be expected if we assume that childcare responsibilities limit the ability of mothers to take on managerial responsibilities at work. Mothers are the least likely to report managerial responsibilities, with childless women

slightly less likely than men, but closer to men than mothers.

Occupational segregation is also shown in table 8.3. This variable indicates the percentage of women in the respondent's occupation.[1] The closer this percentage is to 50, the less gender-segregated the occupation. The table displays the average of this percentage within each group. It suggests that women – both mothers and childless women – in the younger cohort are on average in less segregated jobs. However, there is still considerable polarisation, especially between mothers and fathers. Even in the younger cohort, fathers are in jobs in which men outnumber women 4 to 1, while mothers are in jobs in which women outnumber men by around 2 to 1.

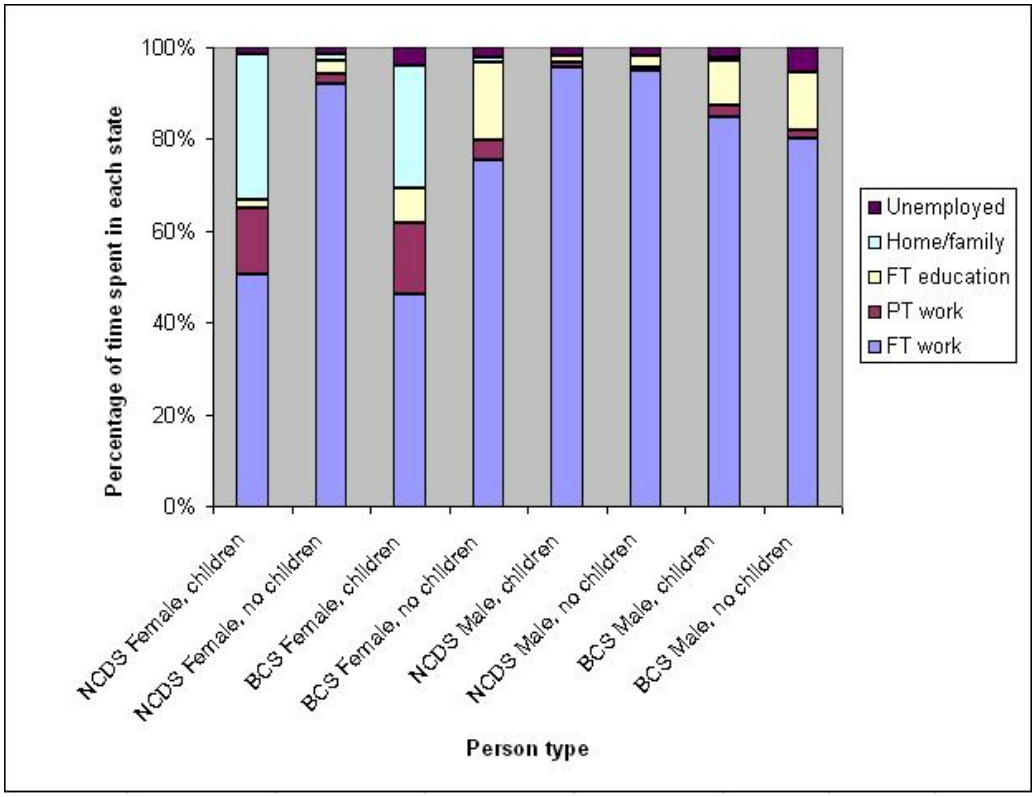
Finally, table 8.3 also shows the proportion of each group working in the public sector. There is a clear gender split here, with mothers and childless women both much more likely to work in the public sector than men; indeed; there seems to be far more variation by gender than by parenthood status. If mothers are more likely to work in the public sector, and also more likely to earn less than anyone else, then perhaps working in the public sector is part of the trade-off between family friendliness and pay and status. Chapter 5 demonstrated the way in which the public sector has always lead the way in offering family friendly provisions.

Figure 8.2 shows the average amount of time spent in each economic state for partnered men and women with and without children.[2] If we compare the mothers in the two cohorts, those in the younger cohort have spent on average less time out of the labour force looking after family than those in the older cohort. Although they have spent less time on average in full-time employment, they have spent considerably more in education, which is also a human capital accumulating activity. However, the differences between mothers in the two cohorts are small, and they have much more in common with each other than they do with fathers and childless women in their own cohorts. Partnered men, with and without children, and childless women have spent the vast majority of their time in either education or full-time employment. Mothers in both cohorts spend only around half of their time in education or full-time employment, and are the only

[1] This information is obtained from census data, which is used to calculate the proportion female within each occupational code. This was originally carried out by Hakim (1998), whose conversion scheme is used here for the NCDS respondents. For the BCS respondents, the method was replicated using census data from the year 2000.

[2] Note that these diagrams do not describe a typical trajectory; rather, they are an aggregation of all respondents within that type. Thus for example a figure of 50% of time in full-time work could be an aggregation of half of the sample working full-time continuously, and the other half not at all; it does not necessarily describe any given case in the dataset. What it does describe is group-level differences in human capital accumulation over the adult lifecourse up to this point, and therefore some explanation of the instantaneous gaps that exist.

Figure 8.2: Time spent in different states by sex, parenthood status and cohort



ones who have spent any substantial amount of time in part-time work. These figures provide quite a stark illustration of why the gender pay gap persists; change within mothers has been small, and mothers still lag far behind men and childless women in their lifetime human capital accumulation.

The descriptive figures presented in this section suggest that so far the data appears to confirm the relevance of the theoretical framework, and reinforces the hypotheses that have been derived from it. The next section will test these associations more rigorously, holding a number of explanatory factors constant simultaneously.

8.4 Regression models

8.4.1 Status

The first set of models presented here looks at the motherhood gap in job status, and its determinants.

Model specification

The model regresses job status against human capital, domestic division of labour, attitudes and motherhood itself. Status is a dichotomous variable indicating whether the respondent is in a professional or managerial occupation, or not.[3] A logistic regression model is used to predict the probability of being in a professional occupation (this type of model is explained in section 1.2 of chapter 4). Separate models are run for each cohort, to enable a comparison of motherhood effects as explained above.

The first independent variable entered into the model is sex and parenthood status; a four-category variable that distinguishes whether the respondent is a mother, childless woman, father or childless man. This is entered alone in the first instance, in order to see the size of the raw gap, unadjusted for human capital differences or other factors that might drive the motherhood penalty. The rest of the explanatory variables are then added sequentially in blocks, to see how their addition improves the model, and the effect that they have on the size and significance of the motherhood penalty.

The first such block is the human capital characteristics that are assumed to drive disparities in status and pay; the resources, in the language of the framework employed above. The two key variables theoretically are education and labour market experience, but although highest qualification is included here, experience is not. A version of the model was run including labour market breaks, but there is so much missing data for the older cohort that its inclusion has a detrimental effect on the model; dropping it more than doubles the number of cases and improves model fit. The block also includes job characteristics that are assumed to be associated with status and pay; hours worked, managerial or supervisory responsibilities, occupational segregation and sector of em-

[3] An ordinal logistic regression model was also run, using a three category variable (professional/managerial, intermediate, routine/manual) as its dependent. However the coefficients obtained were very similar to those obtained from the binary model, therefore this model is not presented here as it does not provide any additional insight.

ployment.

The next block of variables reflects the division of work and care in the household. The employment characteristics of the respondent's partner are represented by whether they work full-time, what they are paid, their job status and their educational level. Division of housework is represented by the number of 'feminine' tasks shared or done by the respondent's partner; these tasks are cooking, shopping, laundry and cleaning (childcare cannot be included because there are childless people in the sample). It is expected that having a partner who works fewer hours or has a lower status job, and who does some or all of the housework, is likely to have a positive impact on the respondent's pay and status. Partner's educational level is also assumed to be a rough proxy for the egalitarianism of their attitudes to work and care, as there is no information on the dataset about their actual attitudes.

Finally, the respondent's attitudes to working motherhood, and their work orientation, is included in the model. This is assumed to be important for predicting outcomes because, even if high status or well-paid jobs are available to mothers, this does not mean that they will automatically take these jobs.

Results

Results for the older cohort are given in table 8.4. Model 1 in the table is the first model with the motherhood effect only. Motherhood is the reference category, therefore the three coefficients represent the difference between mothers and childless women, fathers and childless men respectively. All three categories show a significant, positive coefficient, suggesting that all three groups are more likely than mothers to be in professional or managerial jobs. The odds are 1.6 times higher for fathers, 2.2 times higher for childless women, and 2.7 times higher for childless men. The variable on its own is not a very good predictor of status, with the pseudo-R^2 suggesting that it explains just 3% of the variation in status.

Table 8.4: Regression results: being in a professional or managerial occupation, NCDS

Variable	Respondent is in a professional occupation			
	(1)	(2)	(3)	(4)
	Odds ratio	Odds ratio	Odds ratio	Odds ratio
	(*p*-value)	(*p*-value)	(*p*-value)	(*p*-value)

Sex and parenthood status				
Female, children	ref	ref	ref	ref
	-	-	-	-
Female, no children	2.219***	1.244	1.074	1.093
	(0.000)	(0.180)	(0.674)	(0.601)
Male, children	1.548***	0.595**	0.535*	0.546*
	(0.000)	(0.002)	(0.011)	(0.015)
Male, no children	2.666***	0.889	0.664	0.687
	(0.000)	(0.517)	(0.075)	(0.108)
Education				
School		ref	ref	ref
		-	-	-
None		0.367***	0.424**	0.424**
		(0.000)	(0.001)	(0.001)
Post school		12.23***	9.807***	9.785***
		(0.000)	(0.000)	(0.000)
Hours worked per week		1.022***	1.021***	1.020***
		(0.000)	(0.000)	(0.000)
Has managerial/supervisory duties		4.128***	4.129***	4.127***
		(0.000)	(0.000)	(0.000)
Percent female in occupation		0.989***	0.989***	0.989***
		(0.000)	(0.000)	(0.000)
Works in public sector		1.606***	1.574***	1.564***
		(0.000)	(0.000)	(0.000)
Partner works part-time			0.954	0.964
			(0.790)	(0.837)
Partner's income			0.988	0.986
			(0.903)	(0.887)
Partner's job status				
Professional or managerial			ref	ref
			-	-
Intermediate			1.049	1.047
			(0.721)	(0.730)
Routine and manual			0.633***	0.634***
			(0.000)	(0.000)
Partner's education				
None			ref	ref
			-	-
School			1.270	1.271
			(0.081)	(0.080)
Post school			2.742***	2.742***
			(0.000)	(0.000)
Number of routine tasks shared			1.050	1.047

			(0.391)	(0.417)
Attitude to working mothers				0.953
				(0.340)
Attitude to work				0.992
				(0.877)
N	3034	3034	3034	3034
Pseudo-R^2	0.0245	0.330	0.348	0.348
LL	-1968.8	-1353.1	-1316.7	-1316.2

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Results for the older cohort are given in table 8.4. Model 1 in the table is the first model with the motherhood effect only. Motherhood is the reference category, therefore the three coefficients represent the difference between mothers and childless women, fathers and childless men respectively. All three categories show a significant, positive coefficient, suggesting that all three groups are more likely than mothers to be in professional or managerial jobs. The odds are 1.6 times higher for fathers, 2.2 times higher for childless women, and 2.7 times higher for childless men. The variable on its own is not a very good predictor of status, with the pseudo-R^2 suggesting that it explains just 3% of the variation in status.

Considerable improvement in predictive power is achieved with the addition of the human capital variables, which bring the variation explained up to about a third; this is shown in the second column of table 8.4. Their addition also has a profound impact on the estimated motherhood penalty. The odds ratios on childless men and women become insignificant, suggesting no significant difference in status between them and mothers after controlling for the human capital factors here. Furthermore, the odds ratio on fathers remains significant but becomes negative. Controlling for human capital, fathers have 40% lower odds than mothers of being in a professional or managerial job. This situation remains largely unchanged with the addition of the remaining variables reflecting partner's human capital and attitudes (models 3 and 4 respectively), which only slightly further weaken fathers' position relative to mothers. These results show the extent to which the human capital differences between mothers and non-mothers are driving the gap in status; once these factors are controlled for, the gap completely changes from a deficit to an advantage.

The odds ratios on the human capital variables themselves further confirm the importance of these investments as drivers of job status. Those with a degree have nine times the odds of being in a professional job than those with school level qualifications, who are in turn more likely than those with no qualifications. Number of hours worked per week has a positive effect, with the odds of being in a professional job increasing by 2% with each additional hour worked; a magnitude that has the potential to translate into a substantial gap if we compare, say, someone who works 15 hours per week with someone else who works 30 hours per week. Similarly, the decrease of 1% in these odds with each additional percentage female in an occupation is substantial when you consider that mothers are highly concentrated in very female dominated occupations. In this dataset, the average proportion of female employees in mothers' occupations is 80%. Having managerial or supervisory responsibilities also has the expected effect, with those having such responsibilities having four times the odds of being in a professional job. The only potentially surprising result is that on working in the public sector, which is found to have a significant positive effect. It might have been assumed that, as women are more likely to work in the public sector and less likely to be in higher status jobs, there might be a negative correlation. However, perhaps the occupational structure of the public sector is such that jobs are more likely to be classified as professional.

Most of the partner variables are not found to have any significant effect. Those with partners in professional jobs are more likely to themselves be in professional jobs than those with partners who have routine and manual jobs. This suggests that some kind of assortative partnering effect (i.e. selecting someone with similar human capital) is outweighing any negative impact of having a partner in a professional job on one's own work commitment. Having a partner with post-school qualifications has a positive effect relative to having a partner with no qualifications; the odds of being in a professional job are 2.7 times higher. Again this probably reflects this partnering effect, and additionally perhaps confirms an association between education and egalitarianism in the division of work and care. However, the division of household tasks was not found to be a significant predictor of professional employment. Own attitudes to work and care were not found to be significant either, and their inclusion does not improve predictive power or model fit.

Table 8.5: Regression results: being in a professional or managerial occupation, BCS

Variable	Respondent is in a professional occupation			
	(1)	(2)	(3)	(4)
	Odds ratio	Odds ratio	Odds ratio	Odds ratio
	(*p*-value)	(*p*-value)	(*p*-value)	(*p*-value)

Sex and parenthood status				
Female, children	ref	ref	ref	ref
	-	-	-	-
Female, no children	2.274***	1.175	1.028	1.061
	(0.000)	(0.295)	(0.859)	(0.708)
Male, children	1.510***	0.381***	0.292***	0.304***
	(0.000)	(0.000)	(0.000)	(0.000)
Male, no children	2.328***	0.607**	0.428***	0.456***
	(0.000)	(0.004)	(0.000)	(0.000)
Education				
School		ref	ref	ref
		-	-	-
None		0.337***	0.355***	0.350***
		(0.000)	(0.000)	(0.000)
Post school		6.692***	5.034***	5.103***
		(0.000)	(0.000)	(0.000)
Hours worked per week		1.015**	1.016***	1.015**
		(0.002)	(0.001)	(0.002)
Has managerial/supervisory duties		9.799***	9.449***	9.456***
		(0.000)	(0.000)	(0.000)
Percent female in occupation		0.981***	0.982***	0.982***
		(0.000)	(0.000)	(0.000)
Works in public sector		1.724***	1.675***	1.657***
		(0.000)	(0.000)	(0.000)
Partner works part-time			1.240	1.266
			(0.179)	(0.142)
Partner's income			1.142	1.136
			(0.097)	(0.111)
Partner's job status				
Professional or managerial			ref	ref
			-	-
Intermediate			0.841	0.843
			(0.168)	(0.173)
Routine and manual			0.667***	0.671***
			(0.001)	(0.001)
Partner's education				
None			ref	ref
			-	-
School			1.151	1.131
			(0.561)	(0.613)
Post school			2.279**	2.249**
			(0.002)	(0.003)

Number of routine tasks shared			1.080	1.073
			(0.092)	(0.122)
Attitude to working mothers				0.878*
				(0.012)
Attitude to work				1.045
				(0.378)
Observations	3381	3381	3381	3381
Pseudo-R^2	0.0216	0.357	0.371	0.372
LL	-2282.7	-1500.5	-1468.3	-1464.7

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results for the younger cohort (table 8.5) are not enormously dissimilar, although there are some differences. As with the older cohort, the gap between mothers and childless women disappears after controlling for human capital variables. However, this time, the odds ratios on both fathers and childless men remain significant and become negative. Indeed, this reversal of the motherhood penalty is even more marked in the younger cohort, suggesting an even stronger association between mothers' human capital interruptions and their adverse labour market outcomes. By the time all the additional variables on partner's human captial and attitudes to work and care have been added, the odds of childless men being in professional occupations are 54% lower than for mothers, and the odds for fathers are 70% lower.

The odds ratios on the explanatory variables are mostly quite similar as those for the older cohort; in fact they are almost identical in the case of hours worked, occupational segregation and sector. The influence of partner's human capital is largely insignificant here too, although the association between having a professional job and a highly educated partner remains. Having post-school qualifications is not as strongly associated with professional employment in the younger cohort, but the association with having managerial responsibilities in one's job is stronger than in the older cohort. The main departure from the previous model is the significance of attitudes to working mothers in the younger cohort. This is found to have a negative effect; the more traditional the cohort member, the less likely they are to be in a professional or managerial job. The fact that attitudes are significant suggests that this cohort have greater capabilities with respect to their employment opportunities, as it suggests that they are able to exercise

some choice in a way that the older cohort is not.

Overall, the predictive power of the final model in both cohorts is reasonable; .348 in the older cohort, and slightly higher at .372 in the younger. In both cases, most of this comes from the second block of human capital variables. This suggests that the key drivers of professional employment centre around one's own human capital endowments and ability to work long hours and take on responsibilities.

8.4.2 Pay

Model specification

The explanatory variables in these models are almost identical to the above, as the same predictive factors are assumed to be important. The only difference is that this model also controls for status. The dependent variable is logged hourly wage, which has been imputed in the event that real wage data is missing in the dataset.[4] As this dependent variable is continuous rather than binary, the regression model used is linear rather than logistic. As with the models for status above, separate regressions are estimated for each cohort, in order to measure and make a valid comparison between the size of the motherhood penalty in the two cohorts. And again, the raw motherhood penalty is estimated first, before adding the remaining blocks of variables to the model.

Results

Results for the older cohort are given in table 8.6.[5] The coefficients on the sex and parenthood status variable when entered alone (model 1 in table 8.6) show significant differences between mothers and the three other groups. The largest premium is to childless men, followed closely by fathers, with childless women having a somewhat lower premium, suggesting a gender as well as parenthood effect. The value for R^2 suggests that this variable explains 10% of the variation in the dependent variable. This is a higher proportion than for status, although these statistics should be compared with

[4] This imputation process is explained in detail in section 2.2 of Chapter 4.

[5] All the coefficients in the table have been exponentiated for ease of interpretation; because the dependent variable is logged, these coefficients represent the factor of change in the dependent variable that is precipitated by a change in the independent variable, the same as the logistic models used elsewhere in this thesis.

caution, as they are calculated differently.

Table 8.6: Regression results: hourly pay, NCDS

Variable	Hourly pay			
	(1)	(2)	(3)	(4)
	e^{β}	e^{β}	e^{β}	e^{β}
	(*p*-value)	(*p*-value)	(*p*-value)	(*p*-value)
Sex and parenthood status				
Female, children	ref	ref	ref	ref
	-	-	-	-
Female, no children	1.217***	1.189***	1.163***	1.157***
	(0.000)	(0.000)	(0.000)	(0.000)
Male, children	1.329***	1.363***	1.310***	1.300***
	(0.000)	(0.000)	(0.000)	(0.000)
Male, no children	1.349***	1.299***	1.236***	1.222***
	(0.000)	(0.000)	(0.000)	(0.000)
Education				
School		ref	ref	ref
		-	-	-
None		0.922***	0.935**	0.934**
		(0.001)	(0.005)	(0.004)
Post school		1.193***	1.158***	1.160***
		(0.000)	(0.000)	(0.000)
Hours worked per week		0.993***	0.993***	0.993***
		(0.000)	(0.000)	(0.000)
Has managerial/supervisory duties		1.091***	1.092***	1.091***
		(0.000)	(0.000)	(0.000)
Percent female in occupation		0.998***	0.998***	0.998***
		(0.000)	(0.000)	(0.000)
Works in public sector		1.035*	1.037**	1.038**
		(0.011)	(0.007)	(0.005)
Job status				
Routine		ref	ref	ref
		-	-	-
Intermediate		1.236***	1.218***	1.219***
		(0.000)	(0.000)	(0.000)
Managerial and professional		1.345***	1.313***	1.314***
		(0.000)	(0.000)	(0.000)
Partner works part-time			1.067**	1.065**
			(0.006)	(0.007)
Partner's income			1.061***	1.062***

			(0.000)	(0.000)
Partner's job status				
Professional or managerial			ref	ref
			-	-
Intermediate			0.989	0.989
			(0.539)	(0.522)
Routine and managerial			0.964*	0.964*
			(0.024)	(0.024)
Partner's education				
None			ref	ref
			-	-
School			1.046**	1.046**
			(0.005)	(0.006)
Post school			1.102***	1.103***
			(0.000)	(0.000)
Number of routine tasks shared			1.021**	1.022**
			(0.003)	(0.002)
Attitude to working mothers				1.012
				(0.053)
Attitude to work				1.013*
				(0.048)
Observations	3034	3034	3034	3034
Adj. R^2	0.103	0.351	0.367	0.368
F	117.5	150.1	98.50	89.20

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

When the human capital variables are added, the coefficients on sex and parenthood remain significant, and fathers overtake childless men, now experiencing the largest premium relative to mothers. This ordering persists as the other blocks of variables are added, and the magnitude of the effect gets smaller but only slightly. Despite adding a range of human capital and other potentially explanatory variables, the motherhood gap in pay changes hardly at all from its raw from. In the full model (model 4), the hourly wage premium to fathers relative to mothers is 30%, compared with a raw gap of 33%. Childless men earn 22% more per hour than mothers, and childless women earn 16% more per hour.

The block of human capital variables, as with the models for status above, is all significant and provides most of the explanatory power in the model. The effects flow largely in the expected directions, particularly with the predictable premium to qualifications and job status. Being in a female dominated occupation has a negative effect, although the effect of working in the public sector is positive, despite the fact that the public sector is female dominated and women earn less. Perhaps an alternative explanation for this is that working in the public sector protects women's wages, making them higher than they might otherwise be in the private sector. Managerial or supervisory responsibilities have a positive effect on hourly wage of 9%, even after controlling for status, suggesting a correlation between responsibility and earnings at all levels. If mothers are constrained in their ability to take on such responsibilities by their care obligations, then this will be a contributing factor to the motherhood penalty. Interestingly, number of hours worked exhibits a negative relationship with hourly pay; it would seem that, although weekly income can be augmented by working additional hours, long hours do not necessarily mean better-paid jobs.

The impact of partner characteristics is stronger in this model than it was in the status models. Having a partner who works part time carries a wage premium of 6.5%, and as such people are almost all fathers then this will be driving the gap between mothers and fathers. It is a similar story with task sharing, with a wage premium of 2% for each additional task shared; again the gender differences in household work are likely to be driving a wage gap, and the model does not even include the division of childcare.

Finally, attitude to family was not found to be a significant predictor of wage, but work orientation had the expected positive effect; the more work orientated the indvidiual, the more they are likely to earn.

The results for the younger cohort are very similar (table 8.7). On raw pay gaps, childless men have the upper hand, but once other variables are added, the largest premium is to fathers. In the final model this is identical to the older cohort, at 30%. Childless men are a little closer to fathers with a premium of 28%, while childless women do less well with a premium of 13%. Going on their relative position to mothers, it seems that there is a greater divergence between childless men and women in the younger cohort.[6] Thus, gender seems to playing a larger role in the motherhood gap than parenthood status in the younger cohort.

[6] Although the coefficients here cannot provide direct evidence of this, as they only compare each group with mothers, and not with each other.

Table 8.7: Regression results: hourly pay, BCS

Variable	Hourly pay			
	(1)	(2)	(3)	(4)
	e^{β}	e^{β}	e^{β}	e^{β}
	(*p*-value)	(*p*-value)	(*p*-value)	(*p*-value)
Sex and parenthood status				
Female, children	ref	ref	ref	ref
	-	-	-	-
Female, no children	1.140***	1.153***	1.128***	1.130***
	(0.000)	(0.000)	(0.000)	(0.000)
Male, children	1.248***	1.347***	1.298***	1.300***
	(0.000)	(0.000)	(0.000)	(0.000)
Male, no children	1.299***	1.333***	1.278***	1.282***
	(0.000)	(0.000)	(0.000)	(0.000)
Education				
School		ref	ref	ref
		-	-	-
None		0.973	1.000	0.999
		(0.520)	(0.994)	(0.981)
Post school		1.219***	1.178***	1.179***
		(0.000)	(0.000)	(0.000)
Hours worked per week		0.989***	0.989***	0.989***
		(0.000)	(0.000)	(0.000)
Has managerial/supervisory duties		1.139***	1.129***	1.129***
		(0.000)	(0.000)	(0.000)
Percent female in occupation		0.997***	0.997***	0.997***
		(0.000)	(0.000)	(0.000)
Works in the public sector		0.995	0.993	0.992
		(0.830)	(0.724)	(0.710)
Job status				
Routine		ref	ref	ref
		-	-	-
Intermediate		1.250***	1.241***	1.240***
		(0.000)	(0.000)	(0.000)
Managerial and professional		1.309***	1.282***	1.281***
		(0.000)	(0.000)	(0.000)
Partner works part-time			1.125***	1.126***
			(0.001)	(0.000)
Partner's income			1.151***	1.151***
			(0.000)	(0.000)
Partner's education				

None			ref	ref
			-	-
Intermediate			1.051	1.052
			(0.057)	(0.057)
Routine and managerial			0.993	0.994
			(0.790)	(0.793)
Partner's education				
None			ref	ref
			-	-
School			0.945	0.944
			(0.258)	(0.251)
Post school			0.986	0.985
			(0.794)	(0.782)
Number of routine tasks shared			1.028**	1.028**
			(0.003)	(0.003)
Attitude to working mothers				0.994
				(0.584)
Attitude to work				1.003
				(0.802)
Observations	3381	3381	3381	3381
Adj. R^2	0.0314	0.172	0.194	0.194
F	37.52	64.82	46.33	41.69

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

There are a few minor differences in the remaining coefficients, although the results still largely support the underlying theoretical model. Qualifications and high status occupations still have positive and significant effects, and similarly for the negative effects of hours and occupational segregation. The effect of working in the public sector becomes negative, perhaps reflecting the growth of private sector wages over the period, but it is not significant. Partner's education and job status are not significant, although having a partner who works part-time remains significant and the premium is 12.6%, almost twice as high as for the older cohort. The impact of shared tasks remains positive and significant, and of a similar magnitude to the older cohort at 2.8%. Neither of the attitude variables were found to have any significant effect.

Perhaps the biggest difference between the two cohorts is in overall model fit. The adjusted R^2 is much lower for the younger cohort; just .194 in the final model, compared with .368 in the older cohort. The set of explanatory variables seems to be doing a poor job of predicting pay in the younger cohort, and motherhood seems to be a particularly tiny aspect, explaining just 3% of the variation. Thus while the direction and significance of the coefficients does not suggest that the model is wrong or irrelevant, the unimpressive overall evaluation suggests that the important explanatory factors are not contained within it.

8.5 Discussion

The results presented here suggest that the impact of motherhood on job status is not the same as the impact on pay. The unadjusted gaps both suggest that motherhood has a negative impact on both pay and job status, but the adjusted gaps look very different.

For job status, human capital factors seem to be the key drivers of the motherhood penalty; in fact their inclusion in the model reverses it, rejecting the predictions of Hypothesis 2. Once human capital factors are controlled for, there is no significant difference between mothers and childless men or women, and more interestingly the penalty relative to fathers becomes a premium. Thus, the human capital investments that mothers make are driving any gap in job status.

What this says about their labour market capabilities is not entirely clear. As with the previous chapter, the results are consistent with the theory that mothers are choosing to forgo these human capital investments in order to look after their children, and the type of data used here cannot distinguish between preference and capabilities based explanations. It would need to consider the temporal ordering of attitudes, human capital decisions and childbearing to get some impression of which of these are causal factors, which it has not done. It is also difficult to ascertain why mothers have made the decisions they have without asking them for their perspective on these decisions. However, the considerable human capital disparities that mothers accumulate do seem to be an inevitable consequence of a policy environment that leaves them little other option, apart from rejecting motherhood altogether. They have no opportunity to transfer leave entitlements to their partners, and childcare, although improving, does not yet affordably support full-time employment for anyone but the most well-off mothers. There is little to suggest a large capability set of work and care options; the human capital sacrifices

driving the motherhood status gap seem inevitable.

The impact of motherhood on hourly wage is considerably different. The human capital variables are significant, but their addition to the model barely changes the estimated penalty to motherhood, which shows remarkable tenacity. This is more in line with what was hypothesised, although perhaps greater weakening of the motherhood penalty might have been expected after controlling for the other explanatory variables. These results show that, regardless of the human capital investments that mothers make, the motherhood penalty will affect them. Motherhood is affecting the way they are able to deploy the capital they have in the labour market. This is further confirmed by the coefficients on the partner variables, which suggest a wage premium to having a partner who works less and does more housework. Men, especially fathers, are more likely to have this, while mothers are more likely to be that partner. This effect is magnified by a policy environment that, even for the younger cohort, encourages such specialisation. These additional responsibilities mean that they are entering the labour market on fundamentally different terms to fathers; they differ in what they can offer employers. Thus, their capability set of labour market opportunities is smaller.

It is hard to say from these results whether the motherhood penalty in status is smaller in the younger cohort; by the time all the explanatory variables are added, it is not a penalty at all. The premium experienced by the younger cohort is stronger, which is good news for women who have made human capital investments that are more similar to those of their male peers. However, it also suggests that, as long as mothers continue to accumulate less human capital than non-mothers, the penalty will persist, and that this effect has only become stronger for the younger cohort.

The pay gap is very similar in the two cohorts; in fact, the difference between fathers and mothers is identical at 30%. Thus, contrary to Hypothesis 4, the motherhood gap does not seem to be smaller in the younger cohort. That this gap is so fixed represents a strong continuity in gendered household roles; even in dual-earning households, women continue to be the secondary earner, as well as, and because they are, the primary carer.

The discussion at the beginning of this chapter acknowledged the ambiguity of the impact of changes over time in mothers' labour market participation, and in policy, on the motherhood gap in labour market outcomes. Thus, it is not entirely surprising that the results in this chapter paint a picture of great similarity between the two cohorts with respect to the impact of motherhood and other factors on pay and status. Despite considerable policy reform and other potential contextual differences between the two cohorts,

mothers in the younger cohort seem to face the same labour market disadvantage as their older counterparts. Policy reform may have made it easier for the younger cohorts to do their 'one and a half' balancing act between work and care, but it has not opened up new opportunities for more gender egalitarian solutions to the problem of work-family reconciliation.

Chapter 9

Conclusions

This chapter offers a summary and discussion of the research findings presented in this thesis. It first of all reflects on the conceptual basis of the research, and the contributions and pitfalls of the framework that was developed and used as a basis for the empirical work. It then considers the methodology that was employed, and evaluates the usefulness both of the statistical and case study analysis techniques. Finally, it discusses the three substantive findings chapters in turn, outlining the contribution that the findings have made, and what the results could and could not say in relation to the questions set at the beginning of the thesis.

9.1 Conceptual

The creation of an underpinning theoretical framework began with the review of the literature in Chapter 2, which set out the main theoretical perspectives in the existing literature on the division of paid work and care. These formed the basis of the framework developed in Chapter 3, which tried to capture insights from the different disciplines through the application of Amartya Sen's concepts of situated agency and capabilities. From this framework, and taking into account the information presented in Chapter 5 about changes in the policy environment, hypotheses were derived about differences between the two cohorts of women in terms of their work and care outcomes.

9.1.1 Conceptualising the impact of policy and policy change

The problem of the household division of work and care and its determinants is conceptualised within a framework that draws together existing, competing, perspectives within a capabilities-based approach. Explanations of gender disparities in the household and the labour market that are rooted in agency and choice are brought together with perspectives that emphasise the role of power, gender, and institutional context in determining these phenomena. Economics provides an agentic, tangible human capital based model of labour market reward and time allocation in the household, while more sociological perspectives emphasise the role of gender norms and power in arriving at outcomes. Social policy, particularly feminist welfare state perspectives, add an account of how these normative forces shape, and are shaped by, the prevailing policy and market institutions.

The capabilities approach is invoked to bring these ideas together into the concept of situated agency; the conceptualisation of individual and household level decision making played out in a context that shapes not only the choices that are available but also people's perceptions of their own interests and well-being. Thus, although couples may have preferences regarding the ideal division of labour, these are not only practically constrained by labour market opportunities and state support, but normatively by ideas about appropriate parenting. Furthermore, what is normatively 'preferred' is itself shaped by prevailing norms and the perception of the choices that are available. What the research here suggests is that the one-and-a-half model of father working full-time, mother part-time, is not so much popular as the most financially viable and normatively acceptable option provided by the prevailing environment.

The use of the capabilities approach is appropriate but not unproblematic. It represents an improvement on the more narrow human capital approach, because rather than take the prevailing environment as given, it tries to understand how this environment imposes constraints on choice, and how it might change in order to widen this choice. Thus, policy is given a clear evaluative space; to what extent does it enhance or diminish capabilities? However, although the capabilities approach is theoretically neat, it is complex in its operationalization. Indeed, it could be argued that capabilities can never be measured because they represent a hypothetical set of choices, from which only the final outcome can be observed. The theoretical model developed here is used to derive hypotheses, and to guide model selection and interpretation, but its illumination of the choice set is speculative.

9.1.2 The research questions and hypotheses

The capabilities framework was used to derive hypotheses to the specific questions under consideration in this research. The first question addressed was whether the younger cohort have greater capabilities for sharing paid work and care. The hypothesis was that division of labour should be more egalitarian in the younger cohort. This is due to the fact that, given aggregate trends in education and employment, they were expected to have more earning power than their counterparts in the older cohort. This should give them greater capabilities to negotiate their preferred outcome, and previous research has suggested that this greater earning power is likely to result in them not choosing to be full-time carers.

The second question was whether policy changes have improved mothers' capabilities to participate in paid employment. The changes that occurred after 1997 were hypothesised to have worked together to offer better support for maternal employment, and this should therefore be reflected in higher maternal employment. Lengthening leave entitlements and subsidised childcare facilitate labour market attachment, while increases in flexible working should expand the capabilities of a dual-earning family in reconciling work and care. These factors should also work in the same direction in trends towards greater female employment that were driven by rising female education and changing social norms about the role of mothers.

Finally, the research sought to establish whether the penalty to motherhood in employment is any smaller in the younger cohort, perhaps as a result of changes in their employment behaviour, and also if a different policy approach to supporting working families had any impact on the barriers that mothers face in the labour market. Again, it was hypothesised that mothers' capabilities to use their human capital should be better; that changing workplace and social norms, alongside greater support for working parents, should have narrowed the gap in the labour market between mothers and everyone else.

9.2 Addressing the research questions

In order to understand the impact of policy, the research compared two cohorts of parents experiencing the same age under different policy – and socio-economic and normative – environments. The data on these cohorts was in the form of two large-scale, longitudinal survey datasets, and the analysis of this data was primarily in the form of

regression models. However, the analysis also included an element of attempting to analyse the data, or rather selected members of each dataset, at the case level. This section will discuss the contribution and weaknesses of the methodology employed, reiterating some of the issues that were mentioned in Chapter 4, but also reflecting post hoc on the methodology and its usefulness.

9.2.1 Comparative quantitative analysis

The research here exploited a policy discontinuity within the UK, in order to look comparatively at two different policy arrangements. The New Labour government that was elected in 1997 had a different understanding of the role of the state in helping parents to reconcile their work and care responsibilities, compared with the Conservative government that had preceded them. This manifested itself in a considerable extension in financial support to families, the provision and subsidy of childcare, and the extent to which businesses were obliged to make allowances for those with family responsibilities. This change, along with other economic and social changes, altered the environment in which parents decide how best to reconcile work and care, and thus potentially affected the outcomes of these decisions. In turn, a rebalancing of duties between parents may have had an impact on the way that mothers are able to engage with the labour market.

This policy change is the source of variation that the research exploits in order to understand the impact of policy on the division of work and care, and on mothers' labour market participation. The strategy employed is to compare two cohorts of parents, both surveyed in their early thirties, but who, by virtue of being born twelve years apart, straddle this policy discontinuity. The aim is to establish the differences between them with respect to the outcomes of interest, and crucially to try to disentangle the extent to which any differences might plausibly be attributed to policy.

As set out above, the research employs a comparative strategy, comparing two cohorts of parents dividing work and care in different policy environments, with the change over time within a country, rather than cross-national comparison. This is operationalized with data from two large-scale surveys that have followed two cohorts from birth until the present day. The older, born in 1958, were surveyed at the age of 33 in 1991; the younger, born in 1970, were surveyed at the age of 34 in 2004. Thus if 1991 and 2004 correspond to the Conservative and New Labour eras respectively, then differences between the two cohorts with respect to employment and household outcomes might in part be attributable to this difference in policy.

Logistic regression models are used to quantify the impact of cohort membership on the outcomes of interest, controlling for relevant individual-level factors, in order to discern as far as possible the true impact of the prevailing environment on household decision-making and mothers' labour market participation. Contained within this cohort effect is the impact of policy, along with the impact of other factors such as labour market, socioeconomic and normative conditions. The theoretical framework helps make sense of the impact of the prevailing environment on work and care outcomes, via the way that it expands or limits capabilities.

In building the logistic regression models, the building blocks of the capability approach, as developed and customised in Chapter 3, are used to guide the variable selection. The relevant individual level variation is in the aspects of a person that expand capabilities; the resources that give them the related attributes of external employability and influence within the household. Also included are variables encapsulating preferences around work and family life, as an important step between the options on offer and what is chosen.

9.2.2 Deriving and testing the hypotheses

The regression modelling was performed in conjunction with some case-level analysis of selected individuals from the datasets, who were selected on the basis that they represent average household situations in terms of key variables such as their income level and family size. All of the cases fell into one of the three most common categories; the fathers all worked full-time, and the mothers either worked full-time, worked part-time, or did not work. Cases with different divisions of labour were then compared, in order to establish the similarities and differences between them, with a view to highlighting potential causal mechanisms. Although this approach is more qualitative in nature, the inclusion of this aspect of the research cannot be said to have challenged the underlying quantitative paradigm; the 'weight' of the conclusions still comes from the results of the statistical models. The case analysis was employed as part of the process of deriving hypotheses, as an optional add-on rather than an additional methodological approach.

The main reason for doing this case-level analysis was to illustrate the interplay of different factors, in a way that is difficult or impossible to do in a statistical model. The coefficients in a regression models give the impact of one variable, holding all of the others constant; looking at how these variables relate to each other across a single case tells the story in a different way. The high level of detail in the datasets means that this

complex story can be extracted, but conventional statistical analyses cannot capture it. Many of the variables had to be dropped from the models here because of the case loss from missing data, or for reasons of parsimony and avoiding multicollinearity. Case level analysis allowed some consideration of this rich information before it was discarded.

Two specific examples illustrate the two key analytical insights in this research that the case analysis contributed towards. The first is the interacting economic and normative rationales for returning to work or not. One of the mothers in the older cohort, Carol[1], is a classic example of a woman whose labour market trajectory is typically 'motherhood'; she has taken time out after the birth of her children, and then returned part-time. It is then interesting to examine the way in which she differs from mothers who have not taken this path. When compared to Janet, a mother who has dropped out of work completely, it appears that, although they have very similar earning potential and attitudes towards work and motherhood, Carol's partner earns much less than Janet's. This emphasises the economic nature of mothers' decision to return to work. At the other end of the scale, Sandy has never taken a career break and has always worked full-time. This continuous, full-time employment trajectory is likely to be part of the reason why her earning potential is higher than Carol's or Janet's. She is also much more work orientated, emphasising the attitudinal dimension of whether a mother works full-time or part-time.

The second is the way that a comparison of women in the two cohorts can illustrate the way in which the penalty exacted by motherhood is less severe under a policy regime that facilitates labour market attachment. Like Carol in the older cohort, Margaret is a mother in the younger cohort who has taken time out of the labour market and now works part-time. However, Margaret's employment breaks have been much shorter, and in fact non-existent in the case of her second child. This may well have something to do with the more generous maternity leave on offer to her, which by the time her second child was born would have permitted up to a year's leave without having to give up her position. Unlike Carol, Margaret has never had to 'downshift' on her return to the labour market; she has been able to maintain the same level, or even the same job. This is consistent with the idea that stronger rights to return to work help to facilitate mothers' labour market attachment and earning power.

The approach of using case-level analysis is unusual, and it is an illustrative rather than intrinsic aspect of the analysis. What it does, however, is to anchor what could be quite an abstract conceptual discussion in something more intuitive. The research is ultimately

[1] A summary of each case is given on page 72

trying to tell a story about mothers and the way they reconcile paid work and care, and looking at individual cases can help to communicate this story in a more accessible and readable way than a list of regression coefficients. This accessibility is arguably important when conducting policy relevant, quantitative social science, and case-level analysis is potentially one tool with which to achieve it. In addition, it is not just the reader who needs to understand the underlying story, but the researcher themselves, in order to find the right questions to ask.

One modification that might increase the contribution of the method is to pick out unusual cases as well, and compare them to the more average ones. In this kind of analysis, it is difficult, if not impossible, to understand what makes couples adopt non-traditional outcomes, because they are too rare to incorporate robustly into a statistical model. However, looking more closely at these households where they do exist might suggest some factors that make unusual outcomes more likely. This could add a dimension to the story that normal statistical analysis cannot.

9.2.3 Evaluating the method

The data and methodology were characterised by a number of weaknesses, which undermine the validity of the conclusions that can be drawn from the research. One such issue was the dichotomous nature of the dependent variables, which was driven to a great extent by the way in which the data had been collected. Thus it was impossible to distinguish, for example, between couples who divide childcare almost but not quite equally, and one in which the mother does almost all of it; both would be classified in the same category. This problem is compounded by the fact that household outcomes are continually renegotiated over time, while the outcomes represent only an instantaneous snapshot; transitory arrangements may not represent a couple's overall preferences or aspirations around the division of work and care. Thus, dichotomous variables risk drawing false distinctions between observations, or failing to draw them where they should exist, and this undermines any attempt to relate outcomes to explanatory factors, thus weakening the effect of the independent variables and potentially understating their importance.

The models here are also characterised by another problem, which potentially overstates the impact of the explanatory variables. There may be systematic differences between mothers and non-mothers, and between the mothers in the two cohorts. For example, there may be differences in the social background and education of the samples of moth-

ers from the two cohorts. Given the trend for delayed childbearing, particularly among educated women from advantaged socioeconomic backgrounds, this type of mother may be less prevalent in the younger cohort, because such women are less likely to have had a child by the age of 34 than those in the older cohort. The research here did not attempt any systematic analysis of these differences, and future work would need to do so, in order to understand whether these differences are also factors correlated with the employment outcomes of interest. If such correlations exist, then the simple logistic models used here will overstate the impact of motherhood on employment outcomes. More complex selection models would need to be employed to compensate for this bias.

The static nature of the models used in this research is particularly unfortunate given the fact that the data being used is longitudinal, and the analysis does not exploit this aspect of the data to its full potential. Rather than seeing the division of paid work and care as an equilibrium, it is better to think of these outcomes as a stage in a labour market career, and one of a set of changes that occur after childbearing. The presence of data on employment trajectories allows this to some extent, and a measure of labour market attachment before childbearing seems an important control for behaviour after it. Future work would need to apply better imputation methods, in order to overcome the issue of the large amount of data that is missing on these variables, and use them in the analysis in a more robust way. The way in which the employment history data is used here, in a simple imputation of earning potential, means that the results around this variable need to be interpreted with considerable caution.

However, it should also be noted that, because data collection is at fairly wide intervals, the data is not particularly suitable for the analysis of short term changes in couples' circumstances, as fine detail is not available at regular time intervals. In particular, there is no recording of maternity leave, which is coded as being in employment; however, the difference between the two states with respect to the impact on the division of work and care is important. Furthermore, the division of work and care is recorded only at the time of survey, thus the data does not reflect every change that occurs. Thus, there are some questions about change over time that this data cannot answer, and another dataset would need to be consulted in order to do so.

9.3 Main conclusions

The research addressed three questions about gender, work and care. The first was at the household level; whether couples in the younger cohort are more likely to divide work and care on an egalitarian basis. The second asked whether mothers in the younger cohort were more likely to be in work, and if so in full-time work, as a result of policy changes aimed at faciliating this. The third question was whether, in light of changes in maternal employment, mothers faced smaller penalties in the workplace. These are addressed in turn in this section, which summarises the answers that the research has suggested.

Some consideration is also given here what the research was unable to say. Much of this revolves around an issue that is intrinsic to quantitative research of this nature; the 'black box'. The research can say something about aggregate change and systematic response to change, which is an important part of assessing the impact of a policy. However, what it cannot fully illuminate is what lies between the inputs and the outputs; the causal mechanism that links them. Theory can be used to guess at what is inside, and the data determines the extent to which this explanation is plausible, and this is as far as this method can go in understanding this mechanism. The hypothesised mechanism here is that behaviour will not have responded as much as policy has changed because capabilities have not been sufficiently expanded and mothers still face contraints in maintaining labour market attachment. This theme can be seen throughout the results that were obtained.

9.3.1 The division of paid work and care

The first question to be addressed, in Chapter 6, was the persistence of a gendered division of paid work and care in the household. It had been hypothesised that the younger cohort should be more able to achieve egalitarian outcomes. However, the younger cohort was in fact found to be less likely to report equal sharing of childcare than the older cohort.

One possibility is that this result is an artefact of the way in which task sharing is measured by the survey instrument, which has two issues. Firstly, the respondent is asked for their subjective view on whether task sharing is equal, which may not reflect the actual situation. Thus, when making interpersonal comparisons in division of labour, as

this analysis does, the same situation may not be reflected in the same answer given. It could therefore be the case that the younger cohort are not less likely to share childcare equally, but, perhaps because expectations have changed, they are systematically more likely to evaluate a situation as unequal than the older cohort. The second issue with this measure is that there are a finite number of options, some of which may reflect a range of different situations; for example a respondent who says that they do most of a task could be doing anything from 51% to 100%. It could be that for mothers in the younger cohort, although they are more likely to shoulder the majority of the childcare burden, this may constitute on average a smaller share than the mothers in the older cohort.

However, this methodological explanation seems less likely in light of the fact that the other results were as expected. All of the other childcare and household tasks are moving in the expected direction; it is only general childcare whose direction is counter to what was hypothesised. Indeed, it might be interesting to further examine changes in these other tasks; this research focussed in-depth on general childcare, which was assumed to represent a broad overview of childcare activities.

Furthermore, the expected relationship between resources and egalitarianism was seen within each cohort. Higher relative resources do correspond to a more egalitarian division of childcare, suggesting that mothers who make a greater economic contribution do have greater capabilities with respect to negotiating less gendered outcomes. Paradoxically, this effect is not seen across the cohorts; the younger cohort, despite more equal relative resources, does not report a more egalitarian division of childcare.

To say that women in the younger cohort simply prefer to take primary responsibility for childcare is not only odd in light of their greater preference for egalitarianism in every other task, but also contrary to the capabilities framework that has been used to understand this phenomenon. Their preferences for childcare arrangements are situated within a context of available options, and in fact it is not hard to see how their capabilities to achieve egalitarian outcomes may be lower than that in the older cohort. The key factor is the policy environment facing the younger cohort, which actually encourages gender specialisation. It does so through longer leaves and the facilitation of the kind of family-friendly employment that brings lower labour market rewards and entrenches their role in the household as primary carer and secondary earner. From the household perspective, the difference that this creates between mothers and fathers can quickly turn into both a strong rational argument for – and a power balance that makes it difficult to challenge – the gendered status quo.

From an institutional perspective, feminist welfare state theories have drawn attention to the way that policies are both based on and perpetuate gendered patterns of behaviour. The case of UK family policy arguably demonstrates this quite well. As outlined in Chapter 5, the postwar welfare state was set up around an assumption of a male breadwinner system, and offered little support for mothers to be earners on the same terms as fathers. The system has changed, but it has done so in a way that supports the role of mothers as second but secondary earners, and as a result this role has become further entrenched, as seen in the younger cohort.

The institutional structure is simply not set up for couples to reconcile childcare responsibilities with two full-time jobs. There is no comprehensive childcare provision to meet the high cost of full-time childcare, and although mothers in the younger cohort receive more support for childcare, the care itself was cheaper for mothers in the older cohort and did not represent such a significant expense. Furthermore, because leave is reserved almost exclusively for mothers, there is little opportunity to adopt non-traditional parenting roles. Large extensions of leave to mothers but not to fathers has supported a situation of role differentiation rather than shared parenting. The impact of this at the aggregate level is persistent gender inequalities in the labour market, as mothers are forced into the intermittent, part-time patterns of labour force participation that damage their earning power. These aggregate level inequalities then potentially themselves impact the way that negotiations occur in the household, by normalising a gendered system in which men's employment is the default. Without any impetus to change this situation, the status quo is likely to persist.

Therefore, despite considerable reform in work-family reconciliation policy at the turn of the twenty-first century, these reforms have not resulted in this reconciliation becoming any more egalitarian from a gender perspective. However, this was not the rationale behind the policy reform, which has achieved its intended consequences; it has increased female labour force participation to meet employment targets. Gender equality was not the policy rationale, and indeed it has not been facilitated; instead, the unintended consequence of the policy reform has been to reinforce an unequal status quo rather than create opportunities to change it. Such opportunities would require further, radical, reform, such as a universal system of childcare. However, the vast expense of this makes its introduction unlikely in an era of social policy retrenchment. Gender equality also rests on a system that opens up leave provisions for fathers, and perhaps even incentivises fathers to take these up.

This discussion of the impact of policy is not to say that preferences about work and

care do not play a role as well; indeed these were found to be significant predictors of the division of work and care. The relative impact of preference and constraint cannot be ascertained from these results, which merely shows evidence consistent with both interpretations. However, this analysis has tried to construct a theoretical case for why it is not enough to put outcomes down to one or the other, to preference or constraint. The capabilities approach to understanding choice stresses that it is a mixture of both, and the inconsistency between results at the intra and inter cohort level suggests external constraints as well as individual choice.

9.3.2 Mothers' employment behaviour

Chapter 7 addressed two key facets of mothers' labour market participation; whether they work, and if so whether they work full-time or part-time. The chapter considered the factors that enhance the capability to work, diminish capability to not work, or diminish the capability to work. These were hypothesised, on balance, to make maternal employment in the younger cohort more likely, through a combination of financial incentives and loosening constraints on maternal employment due to greater flexibility and tolerance. Indeed, the empirical analysis found mothers in the younger cohort to be more likely to be in employment. However, it should be noted that the change is small in magnitude, and does not suggest any seismic shift in maternal employment in the near future.

At the intra-household level, as with the division of childcare, higher relative resources were found to result in it being more likely that a mother is in work. However, it is not just mother's absolute and relative resources that are important; partner's earning power also plays a key role. For a given level of mother's human capital, her partner's human capital has a negative impact. In other words, while mothers with better earning potential are more likely to be in the labour market, a mother is less likely to be in the labour market the more her husband earns. Thus, there is an economic rationale behind mothers' decision to work, and it is less likely that she will the less she 'has' to. That is not to say that attitudes do not play a role, as those who feel that mothers should stay at home are less likely to be in work, while those for whom work is important to them are more likely.

No cohort difference was found in mothers' propensity to work full-time as opposed to part-time. None of the policy or other environmental changes that occurred seem to have had any impact on this; indeed, the results found individual attitudes to work and

care to be the strongest predictors of this variable. Human capital factors were found to be poor predictors. Thus, it would seem that the decision to work is made on economic grounds, but once this decision has been made, hours worked are more about individual preference. Those who feel that maternal employment is damaging are less likely to be in full-time work, while the strongly work orientated are more likely to be in full-time work. These preferences of course occur within a policy and labour market environment that does not offer many options beyond full-time or part-time work for mothers. Despite considerable policy reform, it is not necessarily any easier to work full-time for mothers in the younger cohort, particularly given the high cost of childcare. As the results from the previous chapter also seemed to suggest, policy does not facilitate a dual-full-time model. Furthermore, by incentivising some options over others, the gender culture on which the policies are based is reinforced and perpetuated.

What these results show is evidence, at the aggregate level, of a lack of change over time in mothers' labour force participation. This is consistent with the theoretical story about a lack of change in mothers' capabilities, but does not conclusively prove that this is why the observed results have happened in this way. Furthermore, it should be noted that the behaviour of the younger cohort compared to the older one does not necessarily mean that change between these two points in time has been linear, or that it will continue in the same direction in the future. This second point seems particularly important in light of the slow pace of change that seems to be suggested by the results presented here, compared with the more rapid changes that occurred earlier in the 20th century.

9.3.3 The motherhood penalty

The final analysis chapter, Chapter 8, investigated the labour market penalties of motherhood; the impact that motherhood has on the way that women are able to engage with the labour market, and whether this differs between the two cohorts. Allowing for other differences between the two cohorts, might the different policy environment affect the kind of headline statistics that motivated the research in the first place, such as the gender pay gap? The analysis focussed on two specific aspects of labour market performance, job status and pay, and the extent to which mothers have poorer labour market performance than fathers and childless men and women.

The results for the penalty to status were surprising. Motherhood itself is associated with being less likely to be in a professional or managerial job, although alone it is a poor predictor of status, explaining very little of the variation in status. Unexpectedly,

this penalty not only disappeared after controlling for differences in human capital; it actually reversed. Controlling for human capital, mothers are more likely than fathers to be in a professional or managerial job. These results suggest that the mechanism through which the motherhood penalty operates is the human capital differences between mothers and fathers, caused by mothers' labour market interruptions.

Key predictors of status in the regression models were hours worked and managerial responsibilities, which both have a significant, positive association with higher status jobs. This suggests that higher status jobs may exclude those with caring responsibilities, because they require a particularly high level of commitment that is difficult to reconcile with childcare. Thus, as it is women who predominantly take on such caring responsibilities, this will result in mothers being disadvantaged in the labour market. capabilities to achieve in the labour market hampered by caring work and policy does not offer the help to overcome this

The results pertaining to status are stronger in the younger cohort. This is good news for mothers in this cohort who can manage to 'be like men' in their accumulation of human capital and commitment to work, as they will be rewarded for this in the labour market, while their counterparts who follow a more traditional family-friendly path will continue to be disadvantaged. However, the former are probably a rare and specific subset of mothers, and their experience is unlikely to be representative of the way in which most mothers experience the reconciliation of work and care.

The results on the financial penalty to motherhood are quite different to those of the status penalty. Again, the raw gap due to motherhood is significant and in the expected negative direction. However, this time it stays constant with the addition of more variables, which control for a range of potential wage determinants. Even after controlling for these, the motherhood penalty not only remains, but stays almost exactly the same size as the raw gap. The additional variables in the wage models are still important predictors. Human capital in particular is a key driving factor of differences in pay, suggesting that the attributes assumed by human capital theorists to be rewarded in the labour market are indeed rewarded. However, the motherhood penalty is remarkably consistent even controlling for human capital.

The analysis here cannot say definitively why this penalty persists; only that its persistence is consistent with a number of theories about why mothers' labour market capabilities might be constrained. Unexplained pay differentials, after controlling for human capital differences, lend some support to the theories of discrimination, segregation and

systematic devaluation found in the literature. However, it is possible there are systematic human capital differences between mothers and non-mothers that are not included in the model, either erroneously or because they are not observable. If this is the case then the model will overestimate the impact of motherhood itself. Furthermore, the evidence is consistent with more choice-based explanations of why mothers end up in lower-paid jobs, and it cannot say anything about the relative influence of choice and constraint on mothers' occupational choices. However, the capabilities approach employed here emphasises the way in which a purely choice-based explanation is meaningless in a situation of asymmetric policy entitlements and continued gendered norms about parenting roles.

9.4 Capable of change?

The picture presented here of the reconciliation of work and care is one of considerable continuity over time in the gendered division of labour and the penalties to motherhood in the labour market. In some cases, movement towards greater egalitarianism seems even to have reversed. The question, then, remains; are these phenomena capable of change? The evidence presented here has suggested that they are, but with some caveats.

Greater support for working motherhood, in a context of shrinking gender disparities in human capital and changing attitudes towards working mothers, have meant that the capability set of the mothers in the younger cohort is larger than that of the mothers in the older cohort. This has manifested itself in signs of greater egalitarianism. Although the division of childcare in general is not reported as being more equal, other results here suggest a move towards greater egalitarianism. Mothers are more likely to be in work, are rewarded more equally for it, and things are slowly beginning to change in other ways at the household level, such as the division of non-childcare tasks.

However, there are still mutually reinforcing inequalities in the household and the labour market, and the institutional conditions are not in place to provide the possibility of radically altering this situation. Indeed, the asymmetric way in which leave provision has been extended to mothers and fathers has positively discouraged greater egalitarianism. If mothers are entitled to up to a year, whilst fathers are entitled to just two weeks, a gendered pattern of specialisation is set in motion. Some possibility of splitting this period of leave more equally would be necessary to undermine this inevitable specialisation. It is true that, since the younger cohort were surveyed in 2004, such changes have been set

in motion, and this is an interesting avenue for future research. However, the experience of the Nordic countries suggests that widespread uptake of such provision is unlikely from such a deeply entrenched starting point of a gendered division of labour. The low level of leave compensation in the UK is also likely to represent a barrier to uptake, and it is difficult to envisage a British government prepared to offer Nordic levels of remuneration.

A final point that should be taken from this research, relating to the possibility of change, is something that the capabilities approach helps to illustrate very well; that change needs to be actively facilitated as well as being allowed on principle. It is not enough to conclude from maternal employment patterns that mothers prefer to work part-time. To do so is to ignore the way in which their capabilities to do otherwise are limited: by expensive childcare, particularly if their expected remuneration is low; by gendered assumptions about parenting roles; and by a policy environment that reinforces their role as primary carer and secondary earner. Because of these factors, anything other than part-time employment may simply not feature in their capability set in the first place.

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Appendix A

Additional tables

Table A.1: Sample size at each sweep

	N
National Child Development Study	
1958 (All babies born)	*17634*
1958 (birth sweep)	17415
1965 (age 7)	15051
1969 (age 11)	14757
1974 (age 16)	13917
1981 (age 23)	12044
1991 (age 33)	10986
2000 (age 42)	10979
2004 (age 46)	9534
2008 (age 50)	9790
British Cohort Study	
1970 (All babies born)	*17287*
1970 (birth sweep)	16571
1975 (age 5)	12981
1980 (age 10)	14350
1986 (age 16)	11206
1996 (age 26)	8654
2000 (age 30)	10833
2004 (age 34)	9665
2008 (age 38)	8874

Table A.2: Association between age of leaving full-time education and highest qualification obtained

Age left full-time education	CM highest qualification							N
	None	CSE	O level	A level	Higher non-degree	Degree/higher degree	Total	
	%	%	%	%	%	%	%	
Under 16	49.8	19.2	22.0	4.5	4.1	0.3	100.0	291
16	15.0	22.4	45.6	7.9	7.5	1.6	100.0	6,145
17	1.9	9.7	53.6	14.8	16.1	3.8	100.0	1,146
18	1.9	4.8	29.0	31.3	25.2	7.8	100.0	1,283
19	3.8	5.3	22.7	34.2	26.3	7.7	100.0	339
20-23	1.1	1.3	3.5	7.0	19.4	67.6	100.0	1,396
24+	2.0	4.2	7.2	4.6	12.7	69.3	100.0	502
Total	10.4	15.0	36.1	11.7	12.7	14.1	100.0	11,102
Gamma =	0.7186	ASE =	0.007					

Table A.3: Relative economic status in the household

	Economic activity female household member							
	FT work	**PT work**	**Unemp-loyed**	**FT edu-cation**	**Sick**	**Home/ family**	**Total**	**N**
	%	%	%	%	%	%	%	
Economic activity of male household member, NCDS								
FT work	17.8	38.3	0.8	0.5	0.3	33.7	91.5	6,298
PT work	0.4	0.4	0.0	0.0	0.0	0.5	1.3	88
Unemployed	0.5	1.2	0.2	0.0	0.0	3.4	5.3	367
FT education	0.1	0.1	0.0	0.0	0.0	0.2	0.5	32
Sick	0.1	0.3	0.0	0.0	0.0	0.7	1.1	76
Home/family	0.2	0.0	0.0	0.0	0.0	0.0	0.3	21
Total	19.2	40.3	1.1	0.6	0.5	38.4	100.0	6,882
Economic activity of male household member, BCS								
FT work	22.9	41.1	0.4	0.7	1.1	26.8	93.1	4,582
PT work	0.8	0.7	0.0	0.0	0.0	0.3	1.9	94
Unemployed	0.1	0.5	0.1	0.0	0.1	0.7	1.4	68
FT education	0.1	0.1	0.0	0.0	0.0	0.0	0.3	15
Sick	0.3	0.4	0.0	0.0	0.1	1.3	2.1	104
Home/family	0.5	0.2	0.0	0.0	0.2	0.3	1.2	60
Total	24.7	43.0	0.5	0.8	1.5	29.4	100.0	4,923

Table A.4: Division of childcare by number of children under five in the household

	Number of children 0-4 (reduced)				
	0	**1**	**2+**	**Total**	**N**
	%	%	%	%	
Division of childcare, NCDS					
Woman mostly	40.5	53.6	65.8	50.6	3,367
Equal	58.5	45.5	32.9	48.3	3,214
Man mostly	0.9	0.7	0.9	0.8	55
Someone else	0.1	0.2	0.3	0.2	12
Total	100.0	100.0	100.0	100.0	6,648
Division of childcare, BCS					
Woman mostly	42.5	58.1	72.2	54.8	2,810
Equal	55.3	39.6	26.8	43.1	2,207
Man mostly	2.0	1.9	0.8	1.8	90
Someone else	0.3	0.4	0.2	0.4	18
Total	100.0	100.0	100.0	100.0	5,125

Table A.5: Collinearity diagnostics for the dependent variables used in the logistic regression model predicting division of care

Variable	**Tolerance**
Household earning type	0.869
Relative education	0.991
Total household income	0.848
Percent female in household income	0.936
Accommodation in mother's name	0.987
Male nonwage income	0.923
Female nonwage income	0.930
Cohort	0.921
Attitudes to maternal employment	0.950
Attitudes to family morality	0.985
Attitudes to work	0.969
Number of dependent children	0.916
Number of children under 5	0.911

Table A.6: Significance of each block of variables in the logistic regression model predicting division of care

	LL	LR	df	p-value	AIC	BIC
Block 1	-5479.24	906.5	3	0.000	10966	10995
Block 2	-5433.49	91.5	4	0.000	10883	10939
Block 3	-5427.41	12.2	3	0.007	10877	10954
Block 4	-5402.80	49.2	1	0.000	10830	10914
Block 5	-5365.29	75.0	3	0.000	10761	10866
Block 6	-5311.38	107.8	2	0.000	10657	10777

Table A.7: Proportion of mothers in work by cohort, number of children and age of youngest child

Age of youngest child	NCDS		BCS	
	1 child %	>1 child %	1 child %	>1 child %
0	53.7	36.2	71.4	50.0
1	61.7	51.1	76.6	58.6
2	64.0	50.6	74.5	59.2
3	61.0	61.8	77.9	65.7
4	77.6	60.7	86.8	74.7
5	76.2	75.9	90.0	76.3
6	83.0	73.2	86.8	82.6
7	96.4	86.0	83.9	81.7
8	82.1	80.5	100.0	84.7
9	91.7	80.3	100.0	86.2
10	78.8	83.3	92.0	93.3
11	81.0	87.5	90.9	76.5
12	93.0	91.7	86.2	87.2

Table A.8: Significance of each block of variables in the logistic regression model predicting maternal employment

	LL	LR	df block	p-value	AIC	BIC
Block 1	-2089.47	25.1	1	0.000	4183	4195
Block 2	-2077.01	24.9	7	0.001	4172	4227
Block 3	-2028.10	97.8	4	0.000	4082	4162
Block 4	-2018.84	18.5	3	0.000	4070	4168
Block 5	-1915.81	206.1	5	0.000	3874	4003
Block 6	-1715.73	400.2	9	0.000	3491	3676

Table A.9: A parsimonius regression model

Variable	Mother is in employment	
	Odds Ratio	*p*-value
Cohort	1.338**	(0.001)
Highest educational qualification		
None	ref	-
CSE	1.280	(0.163)
O level	1.347	(0.060)
A level	1.231	(0.282)
Higher non-degree	3.010***	(0.000)
Degree/higher degree	3.068***	(0.000)
Partner's logged weekly income (£, 1991 prices)	0.703***	(0.000)
Age partner left full-time education		
Under 16	ref	-
16-17	0.995	(0.968)
18-19	0.920	(0.606)
20+	0.549***	(0.000)
Accommodation in joint or own name	1.669***	(0.000)
Attitude to working mothers	0.580***	(0.000)
Attitude to work	1.124**	(0.008)
Own mother employed before started school	1.228*	(0.031)
Number of dependent children in household	0.786***	(0.000)
Number of children aged 0-4 in household		
None	ref	-
1	0.345***	(0.000)
2 or more	0.153***	(0.000)
Cooking shared equally	1.791***	(0.000)
Who does the cleaning		
Woman mostly	ref	-
Equal or partner	1.810***	(0.000)
Someone else	2.196**	(0.006)
Who does the laundry		
Woman mostly	ref	-

Equal or partner	1.545*	(0.013)
Someone else	1.472	(0.252)
N	3620	
LL	-1814.1	
Pseudo-R^2	0.179	
Hosmer-Lemeshow G.O.F. (p-value)	.220	
% correctly classified	74.3%	

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.10: Separate models for the two cohorts

Variable	Mother is in employment	
	NCDS Odds Ratio (*p*-value)	BCS Odds Ratio (*p*-value)
Logged hourly wage (£, 1991 prices)	0.731	1.469**
	(0.097)	(0.003)
Highest educational qualification		
None	ref	ref
	-	-
CSE	1.107	2.068*
	(0.658)	(0.018)
O level	1.110	2.092*
	(0.606)	(0.010)
A level	0.862	2.718**
	(0.554)	(0.005)
Higher non-degree	2.363***	5.381***
	(0.001)	(0.000)
Degree/higher degree	2.337**	4.623***
	(0.005)	(0.000)
Has longstanding illness or disability	0.831	0.909
	(0.254)	(0.570)
Partner's logged weekly income (£, 1991 prices)	0.568***	0.782*
	(0.000)	(0.026)
Age partner left full-time education		
Under 16	ref	ref

	-	-
16-17	0.903	1.438
	(0.448)	(0.257)
18-19	0.942	1.239
	(0.769)	(0.561)
20+	0.713	0.585
	(0.106)	(0.153)
Sources of help	1.080	1.060
	(0.340)	(0.516)
Non-wage income (£, 1991 prices)	1.000	1.000
	(0.885)	(0.742)
Accommodation in joint or own name	2.029***	1.563
	(0.000)	(0.077)
Attitude to working mothers	0.604***	0.533***
	(0.000)	(0.000)
Attitude to family values	0.978	0.981
	(0.678)	(0.809)
Attitude to work	1.136*	1.068
	(0.026)	(0.397)
Identifies as Christian	0.996	1.079
	(0.976)	(0.674)
Own mother employed before started school	1.089	1.501*
	(0.478)	(0.019)
Number of dependent children in household	0.777***	0.815*
	(0.000)	(0.028)
Number of children aged 0-4 in household		
None	ref	ref
	-	-
1	0.331***	0.317***
	(0.000)	(0.000)
2 or more	0.182***	0.0976***
	(0.000)	(0.000)
Cooking shared equally	1.621**	2.554***
	(0.004)	(0.000)
Shopping shared equally	0.857	0.903
	(0.228)	(0.559)
Who does the cleaning		
Woman mostly	ref	ref
	-	-
Equal or partner	1.692**	2.111**
	(0.004)	(0.002)
Someone else	2.150	1.864

	(0.050)	(0.165)
Who does the laundry		
Woman mostly	ref	ref
	-	-
Equal or partner	2.762***	1.151
	(0.001)	(0.586)
Someone else	1.283	6.110
	(0.527)	(0.108)
N	1983	1459
LL	-1041.5	-648.2
Pseudo-R^2	0.174	0.215

Exponentiated coefficients; *p*-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.11: Significance of each block of variables in the logistic regression model predicting full-time versus part-time employment

	LL	LR	df block	p-value	AIC	BIC
Block 1	-1529.60	2.2	1	0.135	3063	3075
Block 2	-1509.88	39.4	7	0.000	3038	3090
Block 3	-1499.88	20.0	4	0.001	3026	3101
Block 4	-1497.83	4.1	3	0.251	3028	3120
Block 5	-1437.65	120.4	5	0.000	2917	3039
Block 6	-1306.96	261.4	11	0.000	2678	2863

Appendix B

Factor analysis

Cohort members have been asked questions about their social, political and moral attitudes, most of which are guaged on a five-point scale from 'Strongly disagree' to 'Strongly Agree'. Some of this information pertains to attitudes about work and family, and is therefore potentially useful in understanding work and care outcomes, and should be incorporated into the statistical models.

There were a large number of attitudinal variables available; the two surveys have 42 of these five-response attitude variables in common. Not all of these were likely to be relevant, but a large number number potentially were. Furthermore, many of the questions pertain to the same attitude, but are phrased slightly differently. It was therefore impossible to include all of the potentially relevant variables individually because they are likely to be highly correlated, creating collinearity problems in the estimation of the model. Exploratory factor analysis was used to distinguish the unique attitudinal dimensions, and to make variables representing those dimensions relevant to this analysis.

Principal components factor analysis was performed in Stata, using the *factor* command, and then performing an orthogonal rotation (*rotate*). The factor loadings obtained are shown in table B.1.

Table B.1: Factor loadings

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
Marriage is for life	0.097	-0.037	0.187	0.000	**0.650**	0.022	0.024	0.125	0.028
I would not want someone from other race to be my boss	**-0.723**	0.057	0.095	0.019	0.045	0.131	0.093	0.008	-0.072
Big business benefits owners at the expense of workers	0.073	**0.640**	0.002	-0.020	0.028	0.141	-0.028	0.025	-0.011
It is alright for different races to marry	**0.715**	-0.040	-0.039	-0.034	-0.111	-0.006	-0.066	0.009	0.008
Management will always get the better of employees	-0.090	**0.587**	0.188	0.023	0.021	0.192	0.069	0.030	-0.034
Environmental problems are not as serious as some people say	-0.095	-0.025	0.125	-0.031	0.054	0.185	0.091	-0.002	**-0.700**
The law should always be obeyed	0.039	-0.187	**0.410**	-0.048	0.170	-0.128	0.074	0.144	-0.081
We should help the environment even at the expense of growth	0.156	0.072	0.025	0.040	0.016	-0.108	-0.020	-0.045	**0.735**
I would not mind if my child's school were half another race	**0.744**	0.103	-0.084	-0.063	0.016	0.122	-0.025	-0.017	0.026
Ordinary working people don't get a fair share of the nation's wealth	0.035	**0.719**	0.045	-0.033	-0.021	0.066	0.006	-0.016	0.088
I don't mind working with other races	**0.788**	0.002	0.010	-0.014	-0.022	-0.077	-0.032	0.015	0.075
Having any job is better than being unemployed	0.059	-0.149	0.225	-0.049	0.126	0.202	0.088	**0.582**	-0.045
The death penalty is sometimes appropriate	-0.287	0.019	**0.573**	0.034	-0.067	0.224	0.028	0.058	-0.052
It does not make much difference which political party is in power	0.062	0.103	0.073	-0.015	0.019	**0.750**	0.008	0.017	-0.018

All women should have the right to choose abortion	0.087	-0.032	0.134	-0.145	**-0.505**	0.047	-0.080	0.012	0.067
Divorce is too easy	-0.023	0.078	0.328	0.041	**0.555**	0.133	-0.014	0.025	-0.012
Everyone should arrange private healthcare	-0.032	-0.288	0.186	-0.078	0.124	**0.447**	0.039	0.021	-0.077
Protecting the environment is the most important political issue	-0.008	0.081	0.048	0.004	0.042	0.319	0.077	-0.015	**0.692**
It is alright to have children without being married	0.253	0.090	-0.017	-0.182	**-0.568**	0.164	0.009	-0.004	-0.040
Private schools should be abolished	0.069	**0.532**	-0.224	-0.041	0.081	0.131	0.071	0.035	-0.035
I would pack in a job I didn't like even if I had no other	0.001	0.068	0.011	-0.001	0.005	0.104	0.056	**-0.801**	-0.005
Married people are generally happier	-0.057	-0.003	-0.068	-0.013	**0.456**	0.025	0.333	0.043	0.003
There is one law for the rich and one for poor	-0.127	**0.694**	0.021	0.037	-0.070	0.107	0.019	-0.022	0.074
You should hang onto a job you don't like	-0.056	0.124	0.129	0.014	0.072	0.057	0.105	**0.760**	-0.037
Politicians are in politics for their own benefit	-0.060	0.326	0.068	0.049	-0.003	**0.523**	0.006	0.032	0.049
Censorship of films and magazines is necessary	-0.026	-0.055	**0.444**	0.065	0.175	-0.216	0.098	-0.070	0.127
The young do not have enough respect for traditional values	-0.149	0.087	**0.592**	0.092	0.154	0.124	0.000	0.077	0.016
The government should redistribute income	0.120	**0.657**	-0.069	-0.042	0.044	-0.012	0.078	-0.056	0.097
None of the political parties would benefit me	-0.089	0.237	0.071	0.006	0.030	**0.695**	0.062	-0.018	-0.029

Law breakers should get stiffer sentences	-0.086	0.045	**0.675**	0.006	0.115	0.159	0.008	0.096	-0.010
Couples with children should not separate	-0.054	0.045	0.097	0.103	**0.621**	0.148	0.160	0.068	-0.014
I would not mind a person of another race living next door	**0.822**	0.011	-0.058	-0.043	0.011	0.033	-0.040	-0.027	0.045
Schools should teach children to obey authority	-0.012	-0.032	**0.665**	0.035	0.055	-0.015	0.041	0.131	-0.040
People without children will be lonely in old age	-0.056	0.078	0.085	0.040	0.053	0.051	**0.705**	0.039	-0.036
A pre-school child will suffer if their mother works	-0.061	0.046	0.021	**0.705**	0.144	-0.009	0.195	-0.031	0.061
A family will all be happier if the mother works	-0.011	0.080	-0.030	**-0.666**	0.116	0.040	0.135	-0.038	0.011
You can have fulfilling life without children	0.192	-0.007	0.054	-0.045	-0.037	-0.092	**-0.639**	-0.009	0.081
Family life suffers if a mother works	-0.074	0.036	0.108	**0.681**	0.152	-0.013	0.266	-0.034	0.090
Children benefit if their mother works	0.030	0.077	0.075	**-0.658**	-0.009	-0.022	0.124	-0.025	0.045
A father's job is to earn, a mother's is to look after house	-0.218	0.033	0.117	**0.460**	0.162	0.096	0.321	0.002	-0.041
People without children are missing out on an important part of life	-0.042	0.024	0.028	0.122	0.062	-0.035	**0.749**	0.043	0.045
Cronbach Alpha	0.825	0.745	0.632	0.677	0.630	0.569	0.599	0.589	0.536

Table B.2: Work orientation

Variable	N	Mean	St Dev	Min	Max
Attitudes to work	17473	0	1	-3.48	2.65

Clear factors emerged, and these are highlighted in bold. The table also gives the Cronbach Alpha for each group of variables.

This method of factor analysis, and the resulting underlying attitudinal 'dimensions', are very similar to a number of other analysis that have used the cohort studies' attitudinal data (Wiggins and Bynner 1993; Wiggins et al 1997; Deary et al 2008; Schoon et al 2010).

The table shows that some of the variables pertain to attitudes that have little to do with the reconciliation of work and care, such as those pertaining to race. The variables that were kept were those relating to work orientation, parenting roles, and family morality. A fourth dimension was found that related to the importance of children, but as the cohort members analysed here are already parents, this variable was not deemed to add much to the analysis and was dropped.

A variable was then constructed to represent each of the three attitudinal dimensions that were included in the analysis. One option might have been to pick one of the group of variables to represent the attitude, but this strategy misses out on the breadth, depth and greater reliability provided by using a battery of items (Cheng et al 2012). Thus, composite indicators were created from all the variables within each dimension, using the factor loadings as weights (Tabachnick and Fidell 2007), rather than a simple sum or average. This method increases the validity of the resulting indicator by weighting it towards those that explain most of the variation in the attitude.

The main disadvantage, however, is that the resulting variable is difficult to interpret intuitively. To take an example, the variable representing work orientation is summarised in table B.2. Looking at this variable, it can be said that the value -3.48 represents the least work orientated a person can be, while 2.65 represents the most work orientated. Inter-personal comparisons, or comparisons by cohort, gender or any other grouping are also possible; the person or group with the higher value is more work orientated. However, it is difficult to say what any absolute value in between the minimum and maximum might mean. In the same way, regression coefficients, which give the impact of a one-unit increase in a variable, cannot be readily interpreted.